Systematic review and mapping study of alternatives to inpatient care for children and adolescents with complex mental health needs

Alternatives to inpatient mental health care for children and adolescents

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Executive summary

Background

Current policy in the UK and elsewhere places emphasis on the provision of mental health services in the least restrictive setting, whilst also recognizing that some children will require inpatient care. As a result there are a range of mental health services to manage young people with serious mental health problems in community or outpatient settings who are at risk of being admitted to an inpatient unit.

Aims

1. To identify, by a systematic review, the different organizational structures and therapeutic approaches described in the literature as alternatives to inpatient mental health services for children and young people, and assess the evidence of effectiveness, acceptability and cost of these alternatives.
2. To identify the range and prevalence of different models of service that seeks to avoid inpatient care for children and young people in the UK.

Methods

We systematically searched electronic databases using a mix of MESH and free text terms, and hand searched the contents of relevant journals to identify studies evaluating or describing alternatives to inpatient mental health care for young people. All types of study design in all languages were eligible for inclusion. We appraised and extracted data for each study and developed a framework for categorizing the types of services. We were not able to pool data because of differences in the interventions and measures of outcome.

We developed a questionnaire asking about Tier 3 and 4 services aimed at managing young people with serious mental health problems outside an inpatient setting who would otherwise be admitted to inpatient care, or an equivalent. We collaborated with the Child and Adolescent Mental Health (CAMH) Mapping team at the University of Durham which provided us with a unique database of CAMH providers. The questionnaire was sent out by email from Durham to all NHS child and adolescent mental health providers in England. We sent a similar questionnaire to CAMH providers in Wales, Scotland and Northern Ireland. We contacted health care and service managers of secure settings in England and local authorities to obtain details of in-reach mental health services in case these were missed by the main survey. We sent a shorter version of the main survey to independent child and adolescent mental health providers in England.

Results

We identified 58 index studies to include in the review: seven randomised controlled trials, six non randomised controlled studies, four pre- post test studies with a comparison group and forty one descriptive studies. These described eight distinct models of care: multisystemic (MST) therapy at home, day hospital, case management, specialist outpatient service, home treatment, family preservation services, therapeutic foster care, and services provided in residential care. No randomised evidence was identified

comparing intensive day treatment, intensive case management, therapeutic foster care or residential care with inpatient care or another alternative.

Main findings – systematic review
Multisystemic therapy in the home: young people receiving home based MST experienced some improved functioning in terms of externalising symptoms, they spent less days out of school and in out of home placement. At short term follow up the control group had a greater improvement in terms of adaptability and cohesion; this was not sustained at four months follow up.

Family preservation services: the results from these studies were mixed, with small significant patient improvements being reported in both the intervention and control groups. Non randomized studies reported fewer out of home placements for those receiving family preservation services.

Intensive home treatment: no differences at follow up were reported between inpatient and home treated children from two RCTs. One non randomised study reported a greater improvement in symptoms.

Intensive outpatient services: no differences were reported at follow up for those receiving intensive outpatient services compared with inpatient care for behavioural or psychological outcomes.

Main findings – mapping study
73% (57/78) of providers responded to the survey in England, Wales, N.Ireland and Scotland, identifying six service types: day services 17% (13/78), intensive outpatients 14% (11/78), home treatment 14% (11/78), therapeutic foster care 1% (1/78), intensive outreach 10% (8/78), crisis intervention 6% (5/78) and early intervention for psychosis (EIP) 28% (22/78). Slightly fewer than 50% (5/11; 45.5%) of independent providers responded, the majority of referrals were from the NHS (34/39; 87%) and services were delivered in urban and rural settings. The longest running services in England, Wales, N.Ireland and the independent sector are day hospitals, and EIP services in Scotland. 70% (29/41) of providers in secure settings responded indicating that some secure settings are able to provide services of a similar intensity as Tier 4 services provided in the community – albeit in a residential setting.

Conclusions
Given the current concerns about the scale and management of mental health problems in children and adolescents, a high priority should be attached to improvements in the quality of the evidence base which currently provides very little guidance for the development of services. Prospective comparative systems of audit, conducted across several centres, which include baseline measurement at admission along with demographic data, and outcomes measured using a few standardised robust instruments have the potential to improve the current level of evidence.

The Project

1.1 Background

Approximately 2,100 young people in England and Wales are admitted to specialist child and adolescent mental health units each year (Worrall *et al.* 2004). The main users of these services are those with eating disorders (25%), mood disorders (~17%) and psychotic disorders (~17%) (O'Herlihy *et al.* 2003; O'Herlihy *et al.* 2005). Although the actual number of young people being admitted is relatively small, the impact of these conditions on the young person can be severe and prolonged and the accompanying use of resources high, particularly for 16/17 year olds (Goodman, 2005). This has implications for a system where there is a shortage of specialised beds (Gowers & Rowlands, 2005), with young people being admitted to general psychiatric or paediatric wards when specialist care is not available (Department of Health 2004a; Worrall *et al.* 2004).

Although methods of case definition and ascertainment vary between countries, and over time, the problems faced by other countries are broadly similar. In France the emphasis is on providing services outside the hospital. However for those using the hospital for mental health services 19% of in patient psychiatric beds and 26% of day hospital places for young people are not in psychiatric hospitals (Provost & Bauer, 2001). In the United States, where the health system is fragmented by multiple providers and health insurers, children with serious mental health problems receive care in a range of different settings which includes the education and social services sector (Burns *et al.* 1995).

A range of mental health services, in the community or in an outpatient setting, has been developed to manage young people with serious mental health problems who are at high risk of being admitted to an inpatient unit (Department of Health 2004b). These alternative services may prevent young people developing a dependency on the hospital environment or being stigmatised. In addition these services may facilitate the transfer of any therapeutic gains to the young person's every day environment, thus maximising the potential for improved health outcomes to be sustained (Katz *et al.* 2004) and for educational attainments to be less severely affected (Milin et al, 2000). Examples include early intervention services in the community for young people with first episode psychosis (McGorry *et al.* 2002), assertive outreach (McGorry *et al.* 2002), dialectical behaviour therapy (Miller *et al.* 2002), family therapy (Lock *et al.* 2005) and multi-family therapy for anorexia nervosa (Scholz & Asen, 2001). The way services are organised also varies. Service configurations include the provision of multi-agency integrated home care or intensive outpatient therapy for young people with severe mental health problems (Department of Health 2004a) and therapeutic units based in a day centre (Street & Svanberg, 2003).

UK policy for the provision of mental health services for young people with complex mental health

Current policy in the UK places emphasis on the provision of mental health services in the least restrictive setting, whilst also recognising that some children will require inpatient care (Jacobs et al, 2004). However, there is evidence of marked regional differences in mental health provision for children and young people within the United Kingdom (Shetty, 2007; Department of Health 2007). Furthermore, children with severe mental illness may be admitted to out-of-district inpatient services in the absence of locally available beds or community-based alternative services (Hewson, 2002).

England

The importance of monitoring the development and delivery of child and adolescent mental health services has been highlighted in the NHS Modernisation Fund, the NHS Plan and the Audit Commission report, 'Children in Mind' (Department of Health, 2004b; Audit Commission, 1999). The paucity of data on child and adolescent mental health service (CAMHS) provision identified in these earlier reports led to the establishment of an annual data collection exercise of specialist CAMH Tier 2 to 4 services in England, which is run by the University of Durham (Department of Health, 2007). More recently attention has focused on the appropriateness of placement of care for young people with complex mental health problems. The recently amended Mental Health Bill highlights the lack of appropriate settings of care for young people with complex mental health problems, and now protects young people from being placed on adult wards.

Wales

In comparison with the rest of the UK there are fewer NHS adolescent inpatient beds per head of population in Wales (National Assembly for Wales, 2001), and these are located at two inpatient units. A strategy for service development in Wales has been outlined in the 'Child and Adolescent Mental Health Services: Everybody's business' document (National Assembly for Wales, 2001). This report identified that the 'volume of Tier 4 services in Wales does not match demand in either capacity or diversity of service available'. More recently the National Service Framework for Children, Young People, and Maternity Services in Wales (National Assembly for Wales, 2005) recommended increasing the provision of specialist multidisciplinary CAMHS Tier 3 teams to provide day care and community intensive care services for young people with complex mental health problems.

N Ireland

The situation in Northern Ireland differs with 27% of the total population being under 18 years of age, compared with 22% in England. There are also higher levels of socio-economic deprivation and higher levels of psychiatric morbidity in the adult population, suggesting that the prevalence of mental health problems will be higher in young people in Northern Ireland than in the rest of the UK. The recent Bamford Review of Mental Health and Learning Disability (Northern Ireland) (2006) argued that "despite many examples of good practice, the overall quality,
consistency and accessibility of [mental health] services is so inadequate that urgent strategic action is needed" (p i).

Child and Adolecent Mental Health (CAMH) services in Northern Ireland are delivered across the four Health and Social Services Boards (HSSBs). There are two sites with inpatient places, one for under-14s and one for young people aged 14-17 years. The Bamford Review reported that there was not sufficient capacity in existing CAMH teams to provide the type of Tier 4 assertive outreach and crisis intervention services that were currently

operational in England & Wales. One of the Review's recommendations was that "models of assertive outreach/ intensive treatment/ day unit treatment for young people with complex needs should be developed and implemented by commissioners and providers as a priority" (p 53).

Scotland

Approximately 25% of Scotland's total population is aged 18 years or under (Scottish Needs Assessment Programme, 2003). Inpatient beds were significantly reduced between 1994 and 2004: from 58 to 9 for children, and from 67 to 35 for adolescents (Child Health Support Group, Scottish Executive, December 2004). This decline happened for a number of complex reasons, one of which was reported to be an increase in specialist community mental health services for children and young people. The report by the Child Health Support Group emphasises the need for the combined development of Tier 3 intensive services with Tier 4 specialist services to augment the range of care available: "Networks of properly established assertive outreach services and well established psychiatric inpatient units are not alternative or competing models of care, but are components in a spectrum of intensive mental health care for children and young people" (p 10).

Looked after children and secure settings

Children in residential care settings are vulnerable to complex mental health problems (Blower et al, 2004). A study in Oxforshsire (McCann et al, 1996) estimated that the prevalence of a psychiatric disorder in adolescents in residential units provided by the local authority to be 96%, compared with 15% in a comparison group, following screening with the Achenbach child behaviour checklist and then completion of a self report questionnaire. In some areas mental health services are set up to care for children in these settings and these services may, in some instances, provide an alternative to being admitted to inpatient care by providing intensive in-reach services within the residential setting.

Children in secure settings for welfare and custodial reasons experience higher levels of mental health problems compared with the general population and thus require a range of services. Recognising this a strategic framework has been recently published by the Department of Health (Department of Health, 2007) for commissioners and service providers to assist access to child and adolescent mental health services. Although there was a 9% increase in the number of CAMH teams targeting support for young offenders between 2004 and 2005 (Department of Health, 2005), the degree to which services operate an in-reach system varies across the country. Some of these services provided in secure settings act as an alternative to inpatient admission for young offenders with complex mental health needs by providing intensive in-reach specialist mental health services on site.

A wide range of services providing an alternative to inpatient care are being delivered across different settings and to different groups of young people with complex mental health needs. Differences in public policy between countries are reflected in the location of care for this group of young people and in the way different agencies, for example mental health, education and welfare, integrate the care they provide. Exactly how these alternative services relate and compare to inpatient care, and which are the most promising types of service, is not known. We conducted a systematic review of the effectiveness of alternatives to inpatient mental health care for

children and young people alongside a survey of the types of services that seek to avoid inpatient care for children and young people in the UK.

2.1 Systematic review

2.1.1 Aims

The aims of the systematic review were:

1. To classify and describe the different organisational structures and therapeutic approaches described in the literature as alternatives to inpatient mental health services for children and young people.

2. To determine the effectiveness, acceptability and cost of alternatives to inpatient care for children and young people.

2.1.2 Criteria for considering studies for this review

Types of studies
The following study designs were eligible for the review: randomised controlled trials (including cluster trials), controlled before-after studies, interrupted time series where there is a clearly defined point in time when the intervention occurred and at least three data points before and three after the intervention, quasi experimental studies, case control studies, cohort studies, and uncontrolled pre/post test design studies.

We included case series, uncontrolled pre/post design studies and descriptive reports to inform the classification of the different models of alternatives to inpatient mental health care. Studies were included if they:

1.Described an intervention that is an alternative to inpatient CAMHS.
2 Provided background information on service utilisation.
3 Described a therapeutic approach that is used as an alternative to inpatient CAMHS.
4 Described the implementation of the alternative to inpatient care, which may include treatment compliance, the acceptability of the service, the setting or underlying policy.

Types of participants
Children or adolescents aged from 5 and up to 18 years who have a serious mental health condition requiring specialist services beyond the capacity of generic outpatient provision i.e., a mental health problem causing extreme distress or severely limiting his or her life. The following types of mental health disorder were included: anxiety disorders (including obsessive compulsive disorders and somatoform disorders), conduct disorders, eating disorders, mood disorders (depression and deliberate self harm; bipolar disorders), personality disorders, pervasive developmental disorders, psychotic disorders and substance-related disorders. Patients described as suffering from non-specific emotional or behavioural disorders were also included. Services admitting adults and young people were only included if at least 75% of the study population were young people.

Type of intervention

Mental health services providing specialist care, beyond the scope of generic outpatient provision, as an alternative to inpatient mental health care. The control group, where appropriate, are those receiving mental health services in an inpatient or equivalent setting. Studies comparing one or more alternative services were also included if they included an inpatient, or equivalent, comparison.

Types of outcome measures
Primary outcome measures included disease specific symptoms, general psychological functioning, acceptability and cost. Secondary outcome measures included: admission rates to inpatient care, completion of treatment, use of out of home placement, length of stay, behavioural problems (measured using a validated scale), deliberate self harm, suicide, patient satisfaction, family functioning, satisfaction, acceptability and cost, return to school and school attainment where applicable, delinquency and substance abuse.

Exclusion Criteria

Studies were excluded for the following reasons:

Study design: aetiology, co-morbidity and descriptive studies of symptoms or clinical features (e.g. relapse or remission); studies assessing risk factors for mental health problems, prevalence studies and correlation studies (for example, associating personality traits with eating disorders); longitudinal studies following child psychiatric patients into adulthood; and case studies relying on expert opinion. Studies including an inpatient group that were clinically different at baseline from those admitted to the alternative service were also excluded.

Population: if fewer than 75% of research participants were children or adolescents aged five to seventeen years. Studies recruiting children and adolescents with developmental disorders (other than pervasive developmental disorder), mild mental health disorders, and those receiving inpatient care for chronic physical illness or child abuse who had a co existing co-morbid mental health disorder were also excluded.

Intervention: the service was not described as an alternative to inpatient care, or there was no inpatient control or equivalent comparison group. For example drug trials, which did not address the therapeutic setting, and post inpatient aftercare interventions.

2.1.3 Search Methods for Identification of Studies

The following electronic databases were searched for primary studies using a 3-step search strategy to identify relevant studies in all languages:

a) The Cochrane Review Group Effective Practice and Organisation of Care (EPOC) Specialised Register (and the database of studies awaiting assessment)

b) The Cochrane Central Register of Controlled Trials (CENTRAL)

c) The Cochrane database of systematic reviews

d) Bibliographic databases accessed through OVID: Medline (1966+), Embase (1982+), British Nursing Index (1994+), RCN database (1985-1996), CINAHL (1982+), PsychInfo (1972+).

e) Other electronic resources:

Health Management Information Consortium (DHData), Database of Abstracts of Reviews of Effects (DARE) (http://www.york.ac.uk/inst/crd/crddatabases.htm#DARE), Kings Fund (2003+), Emerald, NELH Health Management specialist library, NHS Economic Evaluation Database (http://www.york.ac.uk/inst/crd/crddatabases.htm#NHSEED), the social science information gateway (SOSIG), the Turning Research into Practice (TRIP) database (http://www.tripdatabase.com/index.html, CRDC (Central Research & Development Committee, Maternal and Child Health http://www.dh.gov.uk/en/Policyandguidance/Researchanddevelopment/A-Z/Motherandchildhealth/index.htm); System for Grey Literature in Europe (SIGLE) (1980-2004), Dissertations Abstracts Online (1980+) and Young Minds.

Search step 1

We used free text and MESH terms to search the electronic bibliographical databases through OVID (see Appendix 1), combining terms for study design, population, clinical diagnosis and setting. In order to include all inpatient equivalents we did not include terms for the comparison groups.

Search step 2

We searched Google and Google scholar exploring the sensitivity of a broader range of keywords than in step 1 (see appendix 1). The purpose of the search was to identify grey literature and other publications that had not been identified by step 1.

Search step 3

We used the terms from step 2 to supplement the terms used in step 1 to search all the bibliographical databases previously searched (see Table 1). This served as a precaution to ensure that all relevant studies for the systematic review had been identified by using a broader set of keywords. Duplicate publications from step 1 were excluded.

We updated the search in August 2007 to ensure we captured all articles recently added to Medline and PsychInfo as these databases provided the greatest yield in the earlier search. We used a broader set of search terms for the update to include more free text terms, which we identified from the first set of included studies.

Additional searches

In addition to the above search strategy the contents of the following child mental health journals were hand-searched: Child & Adolescent Clinics of N.America http://childpsych.theclinics.com/issues 2002+; Child Psychiatry & Human Development OVID 1980+; Journal of the American Academy of Child & Adolescent Psychiatry http://www.jaacap.com/ 1966+; International Journal of Partial Hospitalization OVID 1987+; Journal of Child & Family Studies OVID1992+; Journal of Child & Adolescent Psychiatric Nursing OVID 2004+; International Journal of Eating Disorders OVID 1981+; American Psychologist OVID 1967+; Journal of Consulting & Clinical Psychology OVID 1980+; Psychiatric Services OVID 1967+; British Journal of Psychiatry OVID 1969+; Journal of Child Psychology & Psychiatry OVID 1967+; Mental Health Services Research OVID 2000+. Bibliographies of retrieved papers were checked. Researchers working in the field of mental health were contacted to secure additional unpublished reports where available and to answer questions we had about the eligibility of studies.

2.1.4 Methods of the Review

2.1.4.1 Quality Criteria for Included Studies

The quality of studies was assessed by the following criteria (see Appendix 2 for a full description) (http://www.epoc.cochrane.org/en/index.html):

Randomised controlled trials

- Concealment of allocation
- Baseline measurement
- Follow-up of professionals
- Follow-up of patients or episodes of care
- Blind assessment of primary outcome(s)
- Standardised measurement of outcome
- Reliable primary outcome measure(s)
- Protection against contamination

Non-randomised studies with a controlled comparison group

- Method of allocating the groups
- Baseline measurement
- Follow-up of professionals
- Follow-up of patients or episodes of care
- Blind assessment of primary outcome(s)
- Standardised measurement of outcome
- Reliable primary outcome measure(s)
- Protection against contamination (only for quasi-randomised studies)

Pre/post test studies with a comparison group

- Baseline measurement
- Follow-up of patients or episodes of care
- Follow-up of professionals
- Study prospective or retrospective design
- Blinded assessment of primary outcome(s)
- Standardised measurement of outcome
- Reliable primary outcome measure(s)

Uncontrolled pre-post test studies/ Case series/ Uncontrolled post-test studies

- Baseline measurement
- Follow-up of patients or episodes of care
- Follow-up of professionals
- Study prospective or retrospective design
- Blinded assessment of primary outcome(s)
- Multi-centred or single-centred design
- Diagnosis described

2.1.4.2 Study Selection

Two reviewers (LB and SS) read all the abstracts identified from the electronic search to identify publications that appeared to meet the inclusion criteria. As a first step, because case definition can vary between countries and over time, we relied on the place of care being described as an alternative to inpatient care (or an equivalent). Selected full publications were independently read by the same two reviewers (LB and SS) who selected studies for inclusion according to the pre-specified inclusion criteria. One reviewer (SS) read the abstracts and full publications from the updating search in August 2007. Two child and adolescent psychiatrists (SG and TJ) read a sample of these publications (n=20) to check the inclusion criteria were applied consistently. Disagreements were resolved by discussion. Principal investigators were contacted if information was missing and to clarify the relevance of non-English language studies. If the authors of non-English papers could not be contacted the relevant parts of the paper were translated.

2.1.4.3 Data extraction

All randomised controlled trials, controlled studies, pre-post test studies with a comparison group and uncontrolled pre-post test studies were extracted independently by pairs of reviewers (LB, SS, HD, MF, JP, LH).

Data extraction sheets were developed on the basis of study design with a common set of core data fields. An example of a data extraction sheet can be found in Appendix 3.

Information from case series, uncontrolled studies and descriptive reports were extracted by one reviewer (LB) and checked by a second reviewer (SS) using a structured pro forma which reflected the key elements of the intervention. These included:

- The therapeutic approach
- The therapeutic goals and if a problem-solving approach was used
- If treatment was individualised
- If comprehensive crisis plans were part of the service
- The degree of family involvement in treatment
- Multi-agency arrangements
- The setting
- Duration/ Intensity of treatment
- Staff involved/ Special Training
- Workload for staff
- Team meetings
- If a treatment manual was used

2.1.4.4 Data Analysis

We have grouped studies according to the intervention type and by study design. However, combining the data from the different studies was not possible as the interventions and measures of outcome differed. Study empirical outcomes are presented in summary tables for the randomised controlled trials and other controlled studies. If follow-up data were available we calculated confidence intervals (CIs) for differences between groups to describe any differences in outcomes (see Tables 4, 5, and 6). These CIs reflect differences at outcome between groups without taking into account baseline group differences. This is because, while the studies generally presented baseline and follow-up scores they did not usually present actual mean and standard deviation (SD) changes for each study group, it was therefore not possible to calculate the statistical significance of any group differences in terms of change from baseline. Moreover, different outcome measures were used across studies and thus the calculated 95% CIs cannot be directly compared.

To overcome both of these problems we calculated standardised mean differences (SMDs) and 95% CIs for each outcome in terms of the mean change from baseline to follow-up using the follow-up SDs. This method of using the follow-up SDs when the standard deviations of the change are not available (as in this review) was the method used by Gotzsche et al (2007) in their review of meta analyses using SMDs. In each case the SMDs were calculated (taking into account the direction of change and the scoring of each instrument) so that negative SMDs indicate results that favour treatment and positive SMDs favour the control group. We present the SMDs and 95% CIs in a forest plot for each study. One problem with SMDs is that they may be difficult to interpret as the measurement scale is in units of standard deviations, i.e., the number of standard deviations between the means. In order to help the reader interpret the meaning of the SMDs we also present the means and 95% CI at follow-up.

Data reported in case series, uncontrolled studies and descriptive reports were synthesised using content analysis to identify the key features of each of the interventions.

2.1.5 Description of studies

Once duplicates had been removed, a total of 18,981 potentially relevant studies were identified using the search strategy described above. In total, 695 full-text papers were ordered and 76 publications representing 58 unique studies were included in the systematic review. As shown in Table 1, once the full text papers were examined by two reviewers, 7 randomised controlled trials, 6 non randomised controlled studies, 4 pre- post test studies with a comparison group and 41 uncontrolled studies met the inclusion criteria. Of the 41 uncontrolled studies, there were 9 case series, 6 descriptive reports, 24 uncontrolled pre-post test studies and 2 uncontrolled post-test studies.

Table 1: Breakdown of systematic review sources

Origin of research evidence (58 Index studies & 18 Supplementary Papers) n=76	**No. abstracts identified**	**Retrieved on the basis of abstract (n)**	**Included on basis of full paper (n)**
Bibliographical Software (OVID)	18,981	451	43
Step 2: Internet Search (GOOGLE)	Not available in search engine	195 (Google Scholar) 19 (Google)	15 (Google Scholar) 4 (Google)
Bibliography of Retrieved Papers	Not applicable	28	11
Direct contact with author	Not applicable	1	1
Hand search of journals	Not applicable	1	1
Unpublished report submitted by author (member of research team)	Not applicable	Not applicable	1
Totals	18,981	695	76

2.1.5.1 Study Population

Of the 58 index studies included in the systematic review, 41 were from the USA, 9 from Canada, 3 from the United Kingdom, 4 from Germany and 1 from Finland. The primary diagnosis of the children and adolescents was emotional and behavioural disorders in 46 studies. Emotional and behavioural disorders cover a wide range of externalising and internalising conditions in the research literature including conduct disorder, attention deficit and bipolar disorder. Of the remaining studies, anorexia nervosa was the primary diagnosis in 3 studies, suicide ideation in 5 studies, psychosis in 1 study, autism in 1 study, substance abuse in 1 study and externalising/ internalising disorders in 1 study. Twenty five studies described interventions that were aimed at adolescents aged 12 years or more, while 20 studies described interventions aimed at younger children. A wider age range for an intervention, covering both adolescents and children, were reported in 6 studies. The age range was unclear in the remaining studies. Of the randomised control trials, non randomised studies with a comparison group and pre-post test designs all but one mentioned a method of ascertaining a diagnosis. The method used varied, with 5 studies using DSM criteria, 2 studies using different versions of ICD codes, 8 studies describing the patient as needing admission to inpatient psychiatric care, and 1 study describing a disease specific assessment process.

2.1.5.2 The interventions

Of the 58 index studies included in the systematic review, 2 assessed multi-systemic family therapy, 19 a day hospital, 10 case management services, 10 a specialist outpatient service, 9 a home-based psychiatric treatment service, 6 a Homebuilders or Family Preservation service, 1 therapeutic foster care and 1 a short term residential care programme. A brief description of each intervention is presented in Table 2, with a fuller description in the shaded boxes within the results section 'Synthesis of Descriptive Information.'

Table 2: Brief Description of Interventions

Multisystemic therapy at home: an intensive, short-term ecological-orientated therapeutic approach that targets individual, family and community factors contributing to youth psychopathology. MST practitioners work with each young person, their family and community associates in identify the determinants of the youth's problems and develop behavioural management techniques. They are also involved in mobilising the problem solving skills of the youth and their families to prevent relapse.

Day hospital: a specialised, intensive treatment approach that typically combines special education, family therapy and individual therapy within a structured, full-time treatment schedule. Partial hospitalisation is a term sometimes used inter-changeably with day hospital to mean the same level and type of service.

Case management: a system of coordinated care offered to children within their home, community and school settings. Case managers determine the mental health and special education needs of children through assessment and consultation with families.

Intensive outpatient services: cover a wide range of psycho-therapeutic approaches and typically offer services for a greater duration and intensity than generic services. These can include crisis intervention services that offer a rapid response for the purpose of assessment, stabilisation and follow-up planning of care needs.

Home-based psychiatric treatment: a wide range of intensive psycho-therapeutic approaches are delivered within the homes of children with the aim of modifying behaviour and improving child and family functional outcomes. Social and welfare services may also be provided to families.

Family preservation services: offered to children with a serious mental health problem who are at risk of out-of-home placement. Therapists provide a range of psycho-therapeutic and behavioural modification interventions within the homes of children, and also provide welfare services to families such as assistance with housing or transport.

Therapeutic foster care: delivered within the homes of specially trained foster parents who provide a home-like environment for children while attempting behavioural modification and psychosocial improvement as part of a multi-disciplinary therapeutic team. Foster carers are regularly supervised and have frequent contact with case managers.

Residential care: provided to children in need of community rehabilitation. Specific mental health treatment programmes may include a systems oriented framework with behavioural management programmes, medication management, special education and family therapy as an alternative to inpatient admission.

Table 3 presents a map of the research literature classified according to the type of intervention described. Overall, the standard of reporting on the elements of an intervention is poor with many individual studies failing to report the duration and intensity of an intervention, the training and qualifications of staff, the use of treatment manual-guidelines or team meetings. Although case series, uncontrolled pre-post test studies and descriptive reports were included to inform the typology of interventions,

there is no evidence that such reports provide greater volume and depth of qualitative evidence than other study designs included in this systematic review. Indeed, many case series and uncontrolled pre-post test studies have a poor standard of reporting on the specific features of the intervention that they seek to describe.

Within each intervention group, there are considerable individual differences between studies in the application of each intervention approach, even when the overall therapeutic aims are broadly similar. In particular, the staffing arrangements for outpatient clinics vary with some rapid-response crisis services employing an on-call psychiatrist and psychiatric nurses (Greenfield et al, 2002), whereas others are run by clinical social workers (Gillig et al, 2004). Furthermore, day hospital programmes differ in their therapeutic approach ranging from a psychodynamic orientation (Blackman et al, 1986; Gabel et al, 1988; Grizenko & Sayegh, 1990; Sack, 1987) to a more social-behavioural mode of intervention based on a system of rewards and punishment (Robinson & Rapport, 2002; Kotosopoulos et al, 1996).

Table 3: Map of interventions from systematic review

Type of Intervention	RCT	Non randomised studies	Pre-post test design with comparison group	Uncontrolled pre-post test/ descriptive/ case series
Multisystemic therapy	**Henggeler et al (1999)** Halliday-Boykins et al (2004) Henggeler et al (1995) Henggeler et al (1997) Henggeler et al (2002) Henggeler et al (2003) Huey et al (2004) Huey et al (2005) Schoenwald et al (2000) Sheidow et al (2004) **Rowland et al (2005)**			
Day hospital or Partial Hospitalisation *(the latter term is used in the some of the descriptive studies)*		**Cornwall & Blood (1998)**		**Blackman et al (1986)** **Gabel et al (1988)** **Ginsberg (1987)** **Granello et al (2000)** **Grizenko & Sayegh (1990)** **Grizenko et al (1994)** **Grizenko et al (1997)** **Huestis & Ryland (1990)** **Hussey & Guo (2002)** **Kettlewell et al (1985)** **Kiser et al (1984)** **Kiser et al (1987)** **Kiser et al (1996)** **Kotosopoulos et al (1996)** **Linnihan (1977)** **Milin et al (2000)** **Robinson & Rapport (2002)** **Sack et al (1987)**
Intensive outpatient service (outreach/ crisis management)	**Byford et al (2007)** **Silberstein et al (1968)**	**Greenfield et al (2002)**	**Blumberg (2002)** **Greenfield et al (1995)**	**Gillig (2004)** **Gutstein et al (1998)** Gutstein et al (1990) **Jaffa & Percival (2004)** **Ruffin et al (1993)** **Waller et al (2003)**
Home psychiatric treatment	**Mattejat et al (2001)** Remschmidt H et al (1988) **Winsberg (1980)**	**Schmidt et al (2006)** **Sherman et al (1988)**		**Erkolahti et al (2004)** **Gopel et al (2000)** Gopel et al (1996) **Lay et al (2001)** **Seelig et al (1992)** **Worrall-Davies & Kiernan (2005)**
Type of Intervention	**RCT**	**Non**	**Pre-post**	**Uncontrolled pre-post**

		randomised studies	test design with comparison group	test/ descriptive/ case series
Family Preservation Services /Homebuilders at home (social services intervention with mental health component operating in the USA)	**Evans et al (2003)** Evans et al (2001) Evans et al (1997) Evans et al (1997a)	**Schwartz et al (1991)** **Wilmshurst (2002)**	**Pecora et al (1991)**	**Kinney et al (1977)** **Mosier et al (2001)**
Therapeutic Foster Care				**Mikkelsen et al (1993)**
Residential Care				**Blackman et al (1991)**
Case Management/Wrap-around Services (Community Care Packages)t			**Evans et al (1996)** Evans et al (1994)	**Barfield et al (2005)** **Bruns et al (1995)** **Burns et al (1993)** **Clarke et al (1992)** **Duchnowski et al (2004)** **Eber et al (1996)** **Fabry et al (2002)** **Schwartz & Wernert (1993)** **Yoe et al (1996)**

[References in **BOLD** are index studies. There are n=58 index studies and 16 supplementary reports]

2.1.6 Methodological quality of the studies

As shown in Appendix 2, most of the identified studies were of poor quality according to our assessment criteria.

Randomised controlled trials (n=7)

Of the 7 randomised controlled trials 1 reported that concealment of allocation was adequate (Byford et al, 2007), and 1 trial followed up professionals delivering the intervention (Henggeler et al, 1999). However, all randomised controlled trials reported patient or episode of care measures and baseline assessment. Blinded assessment of outcome was also achieved by all 7 trials through the use of objective measures and, in the case of two trials, the use of blind raters (Mattejat et al, 2001; Byford et al, 2007). Four reported a degree of attrition, with 74% follow-up of patients achieved by Mattejat et al (2001), 80.4% by Evans et al (2003), 56.36% by Rowland et al (2005) and 81% to 99% by Byford et al (2007) for the different outcomes measured. However, 100% follow-up of patients was achieved by 3 studies (Henggeler, 1999; Winsberg, 1980; Silberstein, 1968).

Standardised measures of outcome were used in 5 of the studies (Henggeler et al, 1999; Mattejat et al, 2001; Evans et al, 2003; Rowland et al, 2005; Silberstein, 1968). Reliable primary outcome measures were employed by 6 trials, with the exception of Winsberg (1980), and protection against contamination was adequately reported in 6 trials, with the exception of Evans et al (2003).

Non-randomised studies with controlled comparison (n=6)

Of the 6 studies, only 2 reported any follow-up of professionals (Schmidt et al, 2006; Schwartz et al, 1991), and one of these studies failed to report any data from the follow-up interviews with social workers (Schwartz et al, 1991). Although all of the controlled studies followed up patients or episodes of care, 3 studies suffered from attrition leading to follow-up rates of 79.27% (Wilmshurst, 2002), 73.10% (Cornwall & Blood, 1998) and 84.76% (Schmidt et al, 2006). The remaining 3 studies achieved 100% follow-up of patients. Blinded assessment of outcome was achieved in all 6 studies by the use of objective measures, such as hospitalisation rates. All studies reported baseline measurements and used reliable primary outcome measures. Standardised measurement was reported in 4 studies through the use of psychometrically robust measures of psychosocial functioning (Wilmshurt, 2002; Cornwall and Blood, 1998; Schmidt et al, 2006; Greenfield et al, 2002). Protection against contamination was reported by 4 studies, with the exception of Wilmshurst (2002) and Sherman et al (1998).

Pre-post test studies with comparison group (n=4)

Adequate baseline measurement, description of diagnosis, blind assessment of outcome and reliable primary outcome measures were achieved by all 4 studies. However, standardised measurement was reported in none of these studies for both the treatment group and comparison group. Professionals were followed-up in 2 studies (Evans et al, 1996; Pecora et al, 1991) and all 4 studies followed-up patients for treatment outcomes. Only 1 of the studies was a multi-centred design (Pecora et al, 1991), with the other three measuring treatment outcomes obtained from one setting of care. Three studies relied on a historical pre-intervention comparison group (Evans et al, 1996; Greenfield, 1995; Blumberg, 2002) and 1 study used a small waiting list comparison group (Pecora et al, 1991).

Case series/ Uncontrolled pre-post test studies (n=41)

Of the 41 uncontrolled index studies, 5 were descriptive reports that were not subject to quality assessment although each was assessed for relevance. Of the index case series and uncontrolled pre-post test studies, all provided an adequate description of diagnosis except Bruns et al (1995) and only 7 relied upon retrospective data sources (Linnihan et al, 1977; Kiser et al, 1987; Sack et al, 1987; Ginsberg et al, 2000; Gillig et al, 2004; Kinney et al, 1977; Gabel et al, 1988). Blind assessment of outcomes was achieved by each study since objective measures such as hospitalisation rates were used, and follow-up of patients or episodes of care were always reported. Moreover, 15 studies reported follow-up of professionals for further information on the progress of the children or adolescents using the alternative services (Clarke et al, 1992; Eber et al, 1996; Granello et al, 2000; Gillig, 2004; Gopel et al, 2000; Grizenko and Sayegh, 1990; Hussey and Guo, 2002; Kettlewell et al, 1985; Kiser et al, 1996; Kotosopoulos et al, 1996; Lay et al, 2001; Milin et al, 2000; Sack et al, 1987; Seelig et al, 1992; Yoe et al, 1996). Of these uncontrolled studies, only 2 were multi-centred (Kiser et al, 1987; Mikkelsen et al, 1993), although many individual studies did report on case management interventions where there was a single coordinating centre arranging individualised packages of care that could involve multiple care settings for the service user in practice (Barfield et al, 2005; Bruns et al, 1995; Clarke et al, 1992; Duchowski et al, 2004; Eber et al, 1996; Fabry et al, 2002; Yoe et al, 1996).

2.1.7 Study Results

Rates of hospitalisation and psychosocial functioning using a range of objective and subjective measures were the most commonly reported outcomes. Summary tables of study results are presented in further detail in Tables 4, 5, 6 at the end of this report. Data are reported below for each of the eight types of intervention by study design, along with forest plots of the standardized mean differences for each measure of outcome. Mean differences with 95% CIs at follow-up are also reported to indicate when baseline differences occurred and to provide a more interpretable unit of measurement. The qualitative synthesis of information describing the interventions is presented below the quantitative data for each intervention.

2.1.7.1 Multisystemic therapy at home

Two randomised controlled trials, both set in the United States, evaluated the effectiveness of mulitsystemic therapy delivered in a home setting as an alternative to an inpatient admission (Henggeler et al, 1999; Rowland et al, 2005). A synthesis of the information describing these types of services is presented in Box 1.

Randomised evidence.

Multisystemic therapy at home vs. Inpatient Care for Psychosis

Henggeler et al (1999) compared multisystemic therapy (MST) at home with inpatient care for young people (mean age 13 years), who were eligible for an emergency psychiatric admission at the Medical University of South Carolina due to psychosis, suicide or homicide ideation, or threat of harm to self or others.

Family Adaptability and Cohesion Evaluation Scale – youth self reported
Small significant differences favouring the control group were observed on the Family Adaptability and Cohesion evaluation scale (FACES) adaptability subscale when control youth left hospital at 1 to 2 weeks after recruitment (mean difference -3.4, 95% CI -6.22 to -0.583; SMD 0.59, 95% CI 0.21 to 0.97) and on the cohesion scale (mean difference -4.1, 95% CI-7.76 to -0.49; SMD 0.41, 95% CI 0.03 to 0.79) (Figure 1). These differences were reduced at 4 month follow up, with the FACES adaptability subscale just reaching significance (SMD 0.39, 95% CI 0.01 to 0.76).

Family Adaptability and Cohesion Evaluation Scale - caregiver assessment
Caregivers of MST youth reported non significant improvements in cohesion at the time when control youth left hospital (mean difference -4.30, 95% CI -6.86 to 1.74; SMD 0.06, 95% CI -0.32 to 0.43), and at 4 months discharge of MST youth (mean difference -3.00, 95% CI -2.76 to 2.16). Taking into account baseline differences this became significant at 4 months follow-up (SMD -0.55, 95% CI -0.93 to -0.17).

Child Behaviour Checklist – care giver assessment
Small significant differences were reported on the Child Behaviour Checklist measure of externalising symptoms when the control youth left hospital (mean difference 5.00, 95% CI 0.41 to 9.59), this became non significant

after taking into account baseline differences (SMD 0.11, 95% CI-0.27 to 0.48). This was also not significant at 4 months follow up (SMD -0.25, 95% CI -0.62 to 0.13). No significant differences were reported at either time period for internalising symptoms.

Child Behaviour Checklist – teacher assessment
Small non significant differences were reported on the Child Behaviour Checklist measure of externalising symptoms at 4 month follow-up (teacher reported mean difference: -3.20, 95% CI -7.96 to 1.56). After taking into account baseline differences, this became significant (SMD -0.52 95% CI -0.91 to -0.14) (Figure 2). No significant differences were reported for internalising symptoms.

Days out of school, self reported alcohol use
At 4 month follow-up MST youth spent fewer days out of school than control youth (mean difference -23 days, 95% CI -41.6 to -4.38, p<.018; SMD -0.47, 95% CI -0.85 to -0.09), and reported significantly less alcohol use compared with the control group when baseline differences were taken into account (mean difference 0.07, 95% CI -1.20 to 1.34; SMD -0.49, 95% CI -0.87 to -0.11).

Youth and caregiver satisfaction
MST youth reported greater satisfaction with their treatment programme at the time when control youth left hospital (mean difference 2.40, 95% CI 0.77 to 4.00; SMD -0.77, 95% CI -1.16 to -0.38), as well as at 4 month follow-up (mean difference 3.50, 95% CI 1.78 to 5.22; SMD -0.77, 95% CI -1.16 to -0.38). Caregivers also reported significantly more satisfaction with MST compared with controls at 1 to 2 weeks follow-up (mean difference 1.10, 95% CI -0.13 to 2.33; SMD -0.41, 95% CI -0.79 to -0.03) and at 4 month follow-up (mean difference 1.50, 95% CI 0.12 to 2.88; SMD -0.41, 95% CI -0.79 to -0.03).

Figure 1 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to discharge) Hennggeler et al, 1999

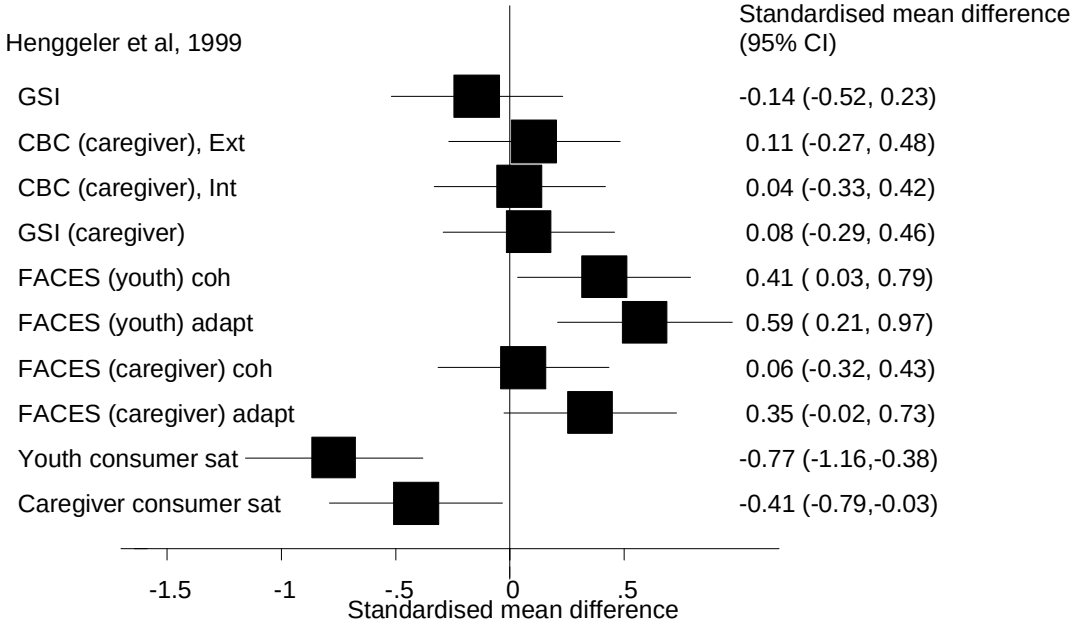
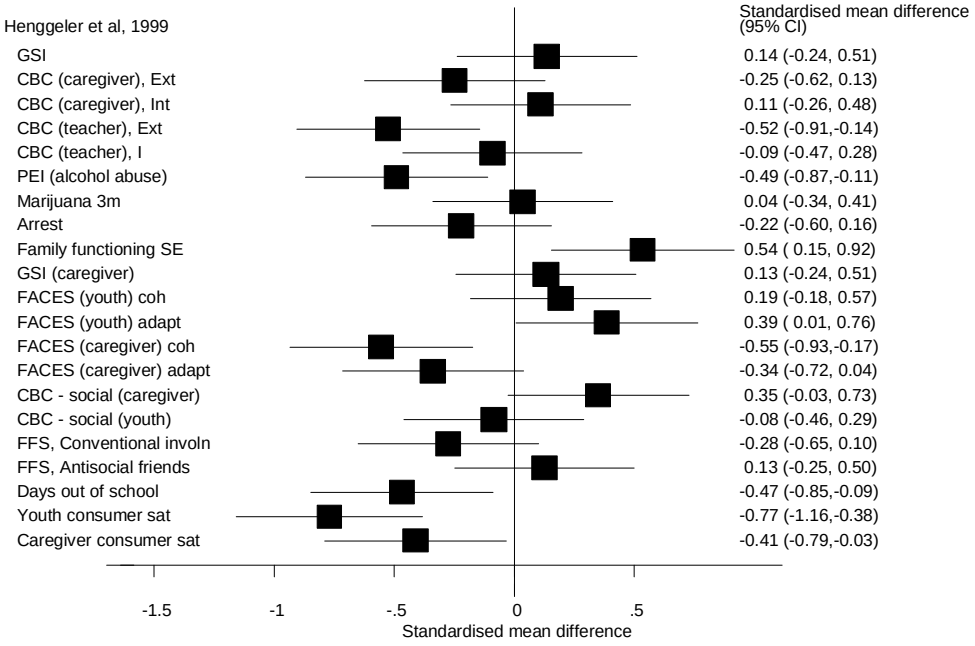


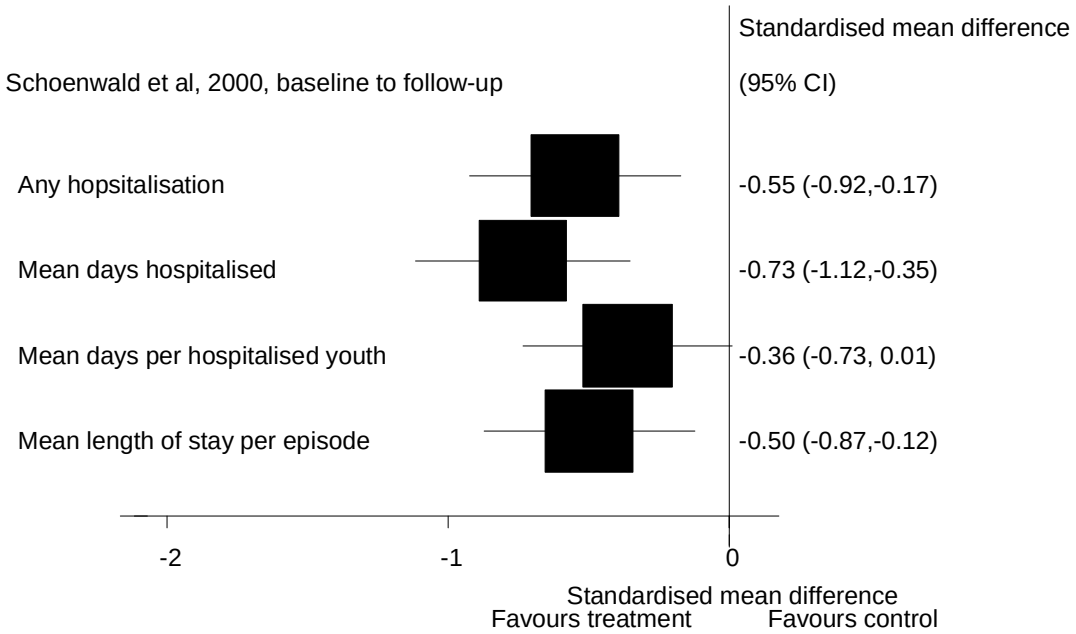
Figure 2 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 4 months follow up) Hennggeler et al, 1999



[CBC=Child Behaviour Index; FACES=Family Adapatability & Cohesion Evaluation Scales; GSI=Global Severity Index; FFS=Family Friends Scale; PEI=Personal Experiences Inventory]

In another publication of this trial, Schoenwald et al (2000) report that 25/57 (43.8%) of MST youth were hospitalised at least once between baseline and 4 month follow-up. Furthermore, 11/56 (19.6%) of the control youth were re-hospitalised after discharge (difference 24%, 95% CI 7.7% to 40.8%; SMD for any hospitalisation -0.55, 95% CI -0.92 to -0.17). The mean length of stay per hospitalisation episode was 3.78 (SD 5.04) for MST youth and 6.06 (SD 4.05) for control youth (mean difference -2.28, 95% CI -4.37 to -0.19; SMD -0.50, 95% CI -0.87 to -0.12). Sheidow et al (2004) examined the treatment costs for 115 Medicaid recipients who participated in this trial, finding statistically significant differences between MST youth and inpatient youth for treatment costs (excluding the costs of MST) over 4 months (mean difference -$3489, 95% CI -$5741 to -$1237, p=.0004).

Figure 3 Forest plot of standardized mean differences for each measure of outcome with 95% CIs, baseline to 4 month follow-up, Schoenwald et al, 2000



Multi-systemic therapy (MST) at home vs. intensive community care for emotional-behavioural difficulties

A second trial (Rowland et al , 2005), evaluating multisystemic therapy at home (see Box 1), was based in Hawaii and recruited young people eligible for mental health services due to serious mental health problems. Community controls received mental health services which were co-ordinated by case managers and could include individual and family therapy, intensive home services, medication management, therapeutic foster care, group home treatment, day treatment, therapeutic aide services and hospital based residential treatment. The attrition rate during the course of this trial was high, with 42% (11/26) of the MST group and 45% (13/29) of the control group not completing follow-up. In addition there were problems with treatment fidelity during the course of the trial, which reflected a limited supply of therapists available to implement the intervention and a complex treatment model. Means at follow-up with 95% CI are presented below, and in Table 4 at the end of this report, together with standardised mean differences (see Figure 4).

Child Behaviour Checklist – youth reported

Small non significant differences were reported for the Child Behaviour Checklist externalising symptoms (mean difference -2.47, 95% CI -11.7 to 6.77; SMD -0.47, 95% CI -1.19 to 0.24) and internalising symptoms (mean difference -1.93, 95% CI -11.1 to 7.29; SMD -0.55, 95% CI -1.27 to 0.17).

Child Behaviour Checklist – caregiver reported

Non significant differences were reported for the Child Behaviour Checklist externalising symptoms assessed by the caregiver (mean difference 1.33, 95% CI -7.13 to 9.79; SMD -0.20, 95% CI -0.91 to 0.51), and internalising symptoms (mean difference 1.20, 95% CI -9.17 to 11.6; SMD -0.13, 95% CI -0.83 to 0.58).

Youth risk behaviour

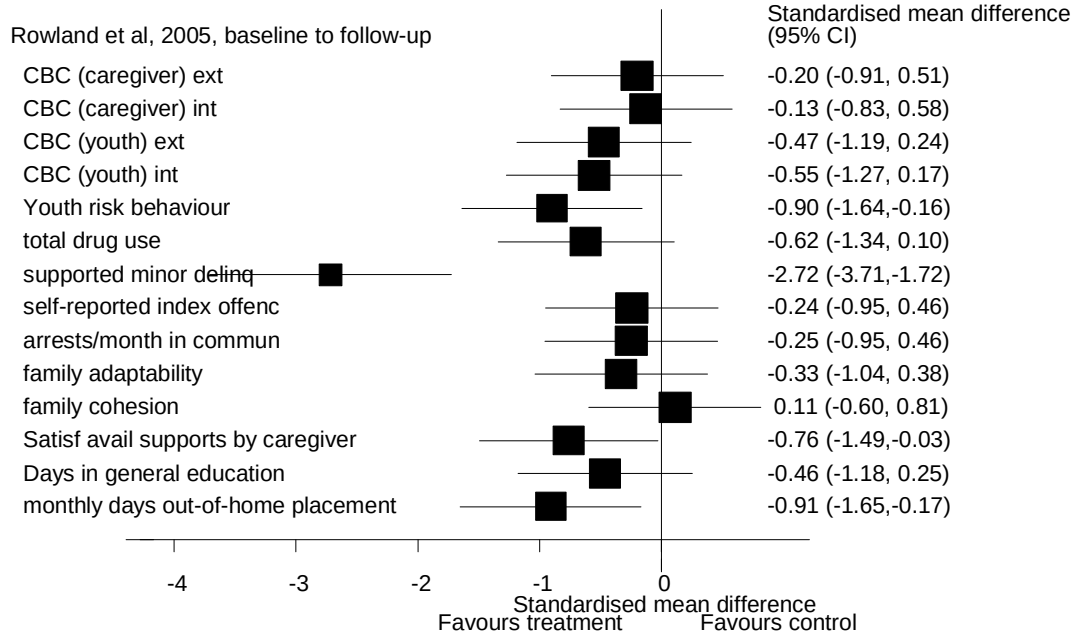
Non significant differences were observed for self-reported minor delinquency, which became significant after adjusting for baseline differences (mean difference 2.14, 95% CI -2.98 to 7.19; SMD -2.72, 95%

CI -3.71 to -1.72). There was also a significant reduction on the Youth Risk Behaviour Score for those receiving MST (mean difference 0.87, 95%CI -1.80 to 0.06; SMD -0.90, 95% CI -1.64 to -0.16).

Out of home placement and hospital admission
Small significant differences were observed in monthly days of out-of-home placement (mean difference, -8.08, 95% CI -14.6 to -1.55; SMD -0.91, 95% CI -1.65 to -0.17). Use of psychiatric hospitalisation for youth receiving MST was 0.53 days per month compared with 3.88 days per month for control youth at six month follow-up.

Satisfaction - caregiver
There were small differences for satisfaction with social support which just reached significance (mean difference 2.59, 95% CI -3.28 to 8.4; SMD -0.76, 95% CI -1.49 to -0.03).

Figure 4 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 6 month follow up) Rowland et al, 2005



[CBC=Child Behaviour Checklist]

Box 1 Synthesis of descriptive information: multi-systemic therapy

Therapeutic approaches: Multisystemic therapy (MST) follows a standard protocol and is a family-centred, ecological orientated therapy targeting individual, family, peer and environmental aspects of psychopathology in the community (Henggeler et al, 1999), and includes the development of aftercare plans (Henggeler et al, 1999). Family therapy, behavioural therapy and cognitive-behavioural therapy are used (Rowland et al, 2005). Comprehensive crisis plans are developed jointly by the therapist and the child psychiatrist and focus on mobilising the problem-solving skills within the family and community (Henggeler et al, 1999).

Family involvement: Families are required to participate with the MST treatment programme through direct participation in both the assessment and family therapy (Henggeler et al, 1999). Family factors contributing to youth psychopathology are addressed as part of the intervention. Therapists work with families (3 families per therapist) to design interventions that emphasise family empowerment and use family strengths as levers for change.

Operational characteristics: The MST service is available 24 hours a day 7 days per week (Henggeler et al, 1999). Therapists work with the young people within their own homes, in collaboration with their primary care-givers (Henggeler et al, 1999). However, if psychiatric hospitalisation is required then therapists continue to provide services in these clinical settings (Henggeler et al, 1999). The workload of each therapist was three families to one provider, and the reported duration of treatment was a mean of 123 days (SD 29 days) (Henggeler et al, 1999). A standard protocol is used but the intensity of treatment is determined by the needs of the youth and their family; there was a mean of 97.1 hours of contact time (SD 57 hours) by one provider over 123 days (Henggeler et al, 1999) compared with 12.07 hours per month (SD 4.62 hours) by another (Rowland et al, 2005). This difference may also reflect the limited supply of therapists in the Rowland trial and difficulties with implementation.

Staff training: MST therapists are Masters level clinicians (Henggeler et al, 1999) who are supervised by a child psychiatrist (Henggeler et al, 1999; Rowland et al, 2005). They receive training in MST methods (Henggeler et al, 1999) which includes a 5 day induction course followed by on-site training, on-going supervision and quarterly on-site booster sessions (Rowland et al, 2005).

2.1.7.2 Homebuilders/ Family Preservation Services for emotional and behavioural disorders

We include one randomised controlled trial (Evans et al, 2003) and three non randomised studies with a control group (Wilmshurst et al, 2002; Schwartz et al, 1991; Pecora et al, 1991) which evaluated the effectiveness of homebuilders programmes, otherwise described as family preservation services, set up to prevent psychiatric admission. All four studies were based in the United States. A synthesis of the information describing these types of services is presented in Box 2.

Randomised evidence

Homebuilders programme vs. a Homebuilders enhanced programme vs. a crisis case management

One randomised trial evaluated the relative effectiveness of a Homebuilders programme vs. a Homebuilders enhanced programme vs. a crisis case management service (Evans et al, 2003) as alternatives to hospitalisation. We report results for those allocated to the enhanced homebuilders programme which was provided in the home vs. crisis case management which provided co-ordination of services and psychiatric referral. Research participants were children with emotional and behavioural disorders experiencing a psychiatric crisis requiring hospitalisation.

Family Adaptability Cohesion Scale and social behaviour
At discharge (4 to 6 weeks after recruitment) there were small significant differences favouring the home builders plus programme on the Family Adaptability Cohesion Scale (FACES) cohesion sub scale (mean difference 4.53, 95 % CI 1.11 to 7.95; SMD -0.56, 95% CI -0.89 to -0.23); and in behaviours that supported social networks (mean difference 10.7, 95% CI 0.40 to 20.9; SMD -0.39, 95% CI -0.72 to -0.06). These differences were not significant at 6 month follow-up.

Child Behaviour Checklist and the Piers Self Concept Scale
The control group showed greater improvements on the Child Behaviour Checklist (CBC) internal score at discharge, after baseline differences had been taken into account (mean difference 1.36, 95% CI -2.01 to 4.73; SMD 0.46, 95% CI 0.13 to 0.79) and the CBC total score (mean difference -0.89, 95% CI -4.04 to 2.26; SMD 0.39, 95% CI 0.06 to 0.72). These differences disappeared at 6 month follow-up, although those receiving homebuilders plus had a greater score on the CBC social competency score (mean difference 0.21, 95% CI -1.57 to 1.99; SMD -0.34, 95% CI -0.67 to -0.02) (Figure 6). The control group reported a greater increase in self esteem measured by the Piers Self Concept Scale (mean difference -0.76, 95% CI -3.72 to 2.20; SMD 0.39, 95% CI 0.06 to 0.72) at 6 month follow-up.

Figure 5 Forest plot of standardized mean differences for each measure of outcome with 95% CIs homebuilders plus vs control (baseline to 4-6 week discharge) Evans et al, 2003

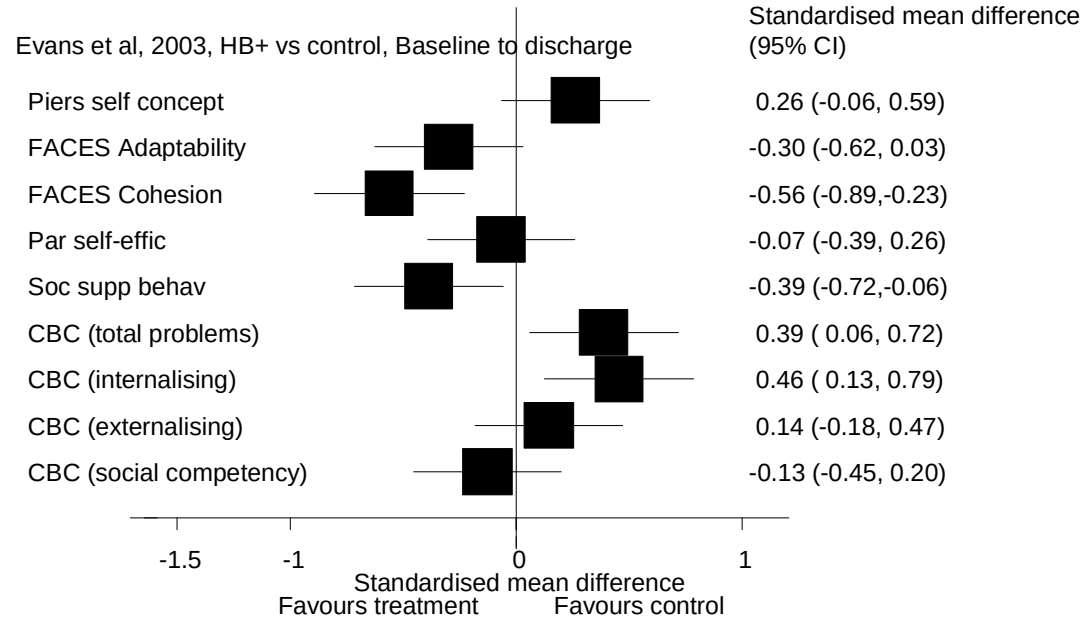
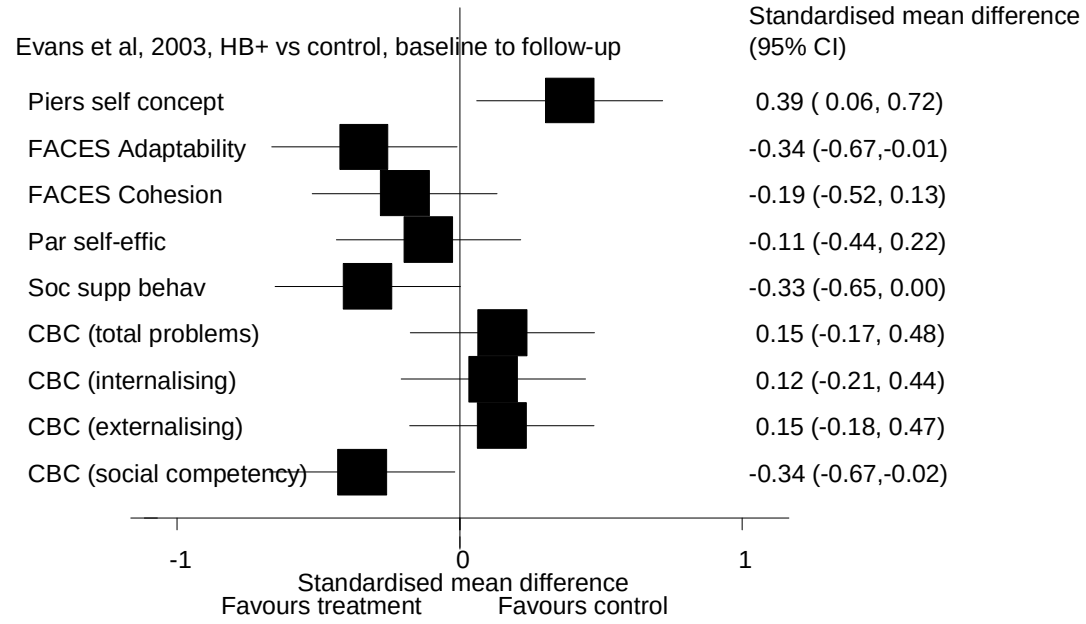


Figure 6 Forest plot of standardized mean differences for each measure of outcome with 95% CIs homebuilders plus vs control (baseline to 6m follow up) Evans et al, 2003



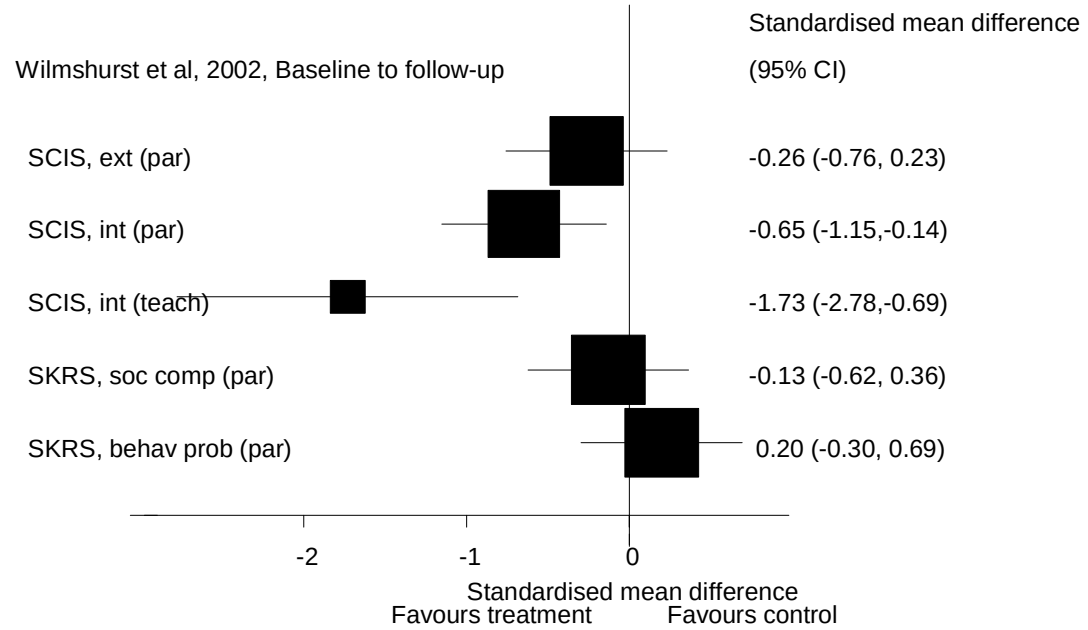
[CBC=Child Behaviour Index; FACES=Family Adapatability & Cohesion Evaluation Scales; Par self effic= Parents Self Efficacy]

Non-randomised evidence with a controlled comparison group

Family preservation vs. out-of-home placement

Wilmshurst (2002) assessed young people who were alternately allocated to a family preservation service or a five day residential care programme (subject to availability). No significant differences were observed between groups at follow up (see Table 5 at the end of the report). However, after adjusting for baseline differences, parents and teachers of those receiving the family preservation service reported significant improvements in internalising behaviour (parent reported mean difference -3.83, 95% CI -9.92 to 2.26; SMD -0.65, 95% CI -1.15 to -0.14); (teacher reported mean difference -3.82, 95% CI -10.6 to 2.99; SMD -1.73, 95% CI -2.78 to -0.69) (see Figure 7 below).

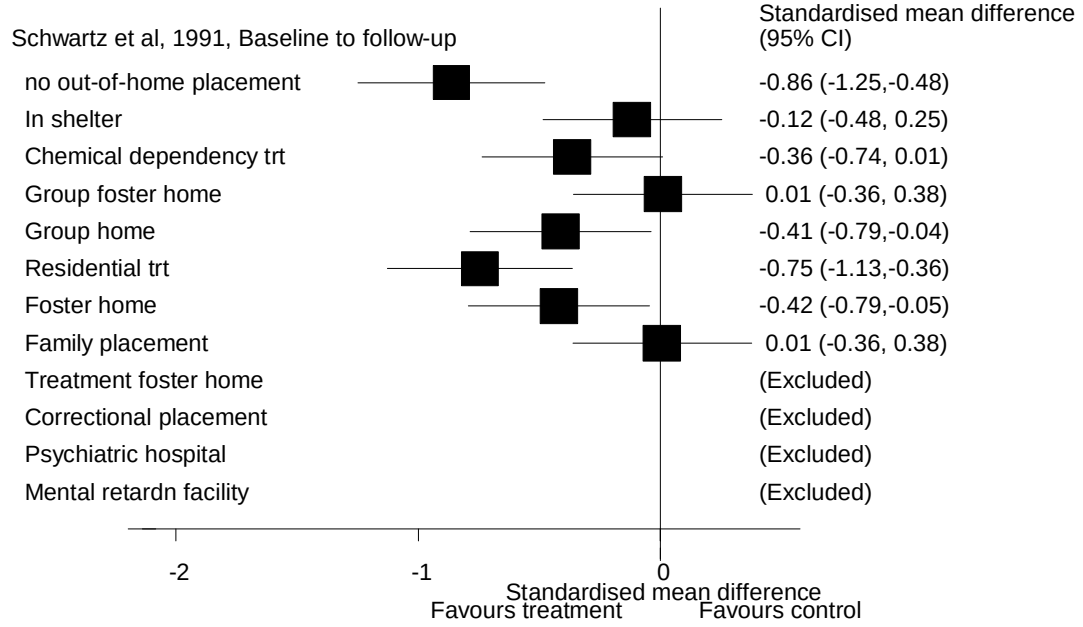
Figure 7 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 1 year follow up) Wilmshurst 2002



[SCI=Standardised Client Information System; SKRS=Social Skills Rating System]

Schwartz et al (1991) followed the progress of young people who were allocated to an intensive home based family preservation service, if a place was available, and compared this group with an equivalent group who received services in a foster home, hospital or residential treatment centre. Children from the comparison group received 7260 more days in out-of-home placement than children receiving family preservation services. Overall, 24/55 (44%) of children receiving family preservation services did not receive any out-of-home placement at 12 to 16 months follow-up compared with 5/58 (9%) of children in the comparison group (difference 35%, 95% CI 20% to 50%; SMD -0.86, 95% CI -1.25 to -0.48). See Figure 8 below for a breakdown of the individual placement settings. Furthermore, none of the 55 children receiving family preservation services experienced psychiatric hospitalisation compared with 2 of the 58 children from the comparison group (difference -3.45%, 95% CI -8.14% to 12.5%).

Figure 8 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 12 to 16 months follow up) Schwartz et al 1991



Family preservation vs. waiting list comparison

Pecora et al (1991), in a pre-post test design using a waiting list comparison group, examined the out-of-home placement rates for children with emotional and behavioural disorders who received family preservation services within their homes. Families on a waiting list formed the control group and were referred to inpatient mental health services and standard social services as appropriate. By 1 year follow-up, 113/342 children (33.04%) from the treatment group had received a placement or had run away from home for a period of two weeks or more. By contrast, 23/27 children (85.18%) from the comparison group had received a placement or had run-away from home for a period of two weeks of more. In this time, 10/342 (2.92%) children from the treatment group used inpatient psychiatric care and 7/27 (25.92%) children from the comparison group (difference: -23%, 95% CI -39.6% to -6.38%).

Box 2

Synthesis of descriptive information: home builders or other family preservation services

Therapeutic approaches: The focus is on the identification of family and individual psychosocial, cultural, community and welfare needs (Evans et al, 2003; Schwartz et al, 1991; Pecora et al, 1991; Mosier et al, 2001; Kinney et al, 1977). The underlying basis is that solutions to crisis can be found through a working partnership between the therapist and the family (Wilmshurst, 2002). Components include relationship building, reframing problems, anger management, communication, setting treatment goals (Pecora, 1991; Kinney, 1977; Mosier, 2001) and cognitive behavioural therapy (Evans et al, 2003; Wilmshurst, 2002; Schwartz et al, 1991). The aim is to prevent an out-of-home placement for children at high risk (Evans et al, 2003; Wilmshurst, 2002; Schwartz et al, 1991; Pecora et al, 1991; Kinney et al, 1977; Mosier et al, 1991). Short-term out-of-home placement from 3 days (Evans et al, 2003) to 2 weeks (Pecora et al, 1991) is permitted for respite care purposes in some cases.

Family involvement: Families are engaged in treatment through goal setting, supervising progress of children, working towards family goals with their children (Schwartz et al, 1991; Mosier et al, 2001) and behavioural management skills (Evans et al, 2003).

Operational characteristics: Clinical services are provided to reflect the diverse needs of individuals and their families with a mean of 31.8 different clinical services per family being typical in one programme (Pecora et al, 1991). Ongoing treatment support services such as respite care, support groups, or day treatment programmes are provided. Follow-up contact sessions monitor progress and therapists may work with other agencies to provide comprehensive treatment (Pecora et al, 1991; Kinney et al, 1977). Food stamps, housing and other basic welfare services can be provided (Evans et al, 2003; Pecora et al, 1991).

Services can respond 24 hours a day (Evans et al, 2003; Wilmshurst, 2002; Kinney et al, 1977; Mosier et al, 2001), and are time limited ranging from 6 to 12 weeks, with 2 families per therapist (Mosier et al, 2001; Evans et al, 2003; Kinney et al, 1977; Schwartz et al, 1991; Wilmshurst, 2002). In one programme therapists were available for up to 12 hours per week with a mean contact time of 48.33 hours (SD 15.02) per family (Wilmshurst, 2002). In another therapists were engaged with their families for more than 37 hours (Pecora et al, 1991).

Therapists are supervised by a child psychiatrist, who also provides consultation and referral services (Evans et al, 2003; Wilmshurt, 2002). Registered nurses, social workers with relevant employment experience (Evans et al, 2003; Schwartz et al, 1991; Mosier et al, 2001), social science graduates and post-graduates may be employed (Wilmshurt, 2002; Kinney et al, 1977).

2.1.7.3 Intensive home treatment

Two randomised controlled trials (Mattejat et al, 2001. Winsberg et al, 1980) and two non randomised comparison studies (Sherman et al, 1988; Schmidt et al, 2006) evaluated the effectiveness of intensive home treatment as an alternative to inpatient psychiatric admission. Two studies were based in Germany (Mattejat et al, 2001; Schmidt et al, 2006), one in the United States (Winsberg et al, 1980) and one in Canada (Sherman et al, 1988). A synthesis of information describing intensive home treatment is presented in Box 3.

Randomised evidence

Home based treatment vs. inpatient treatment

Mattejat et al (2001) evaluated an intensive psychotherapeutic home based treatment in two regions of Germany, Marburg and Mannheim, for children with emotional behavioural disorders. No statistically significant differences were observed between inpatient and home treated children in terms of the number of marked symptoms or adaptation to school or work at 2 to 5 year follow-up (see Figure 9 below).

In a second home treatment study of children with emotional and behavioural disorders, Winsberg et al (1980) reported no statistically significant differences between parental satisfaction with home services compared with inpatient care (see Figure 10 below). At 1.5 to 3 year follow-up, 12/24 (50%) of children treated in hospital were living at home compared with 18/25 (72%) of children who had been treated in the community. The psychosocial outcomes from this trial are not included in this systematic review because they were deemed unreliable due to different raters assessing the treatment and control groups.

Figure 9 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 2 to 5 year follow-up) Mattejat et al, 2001

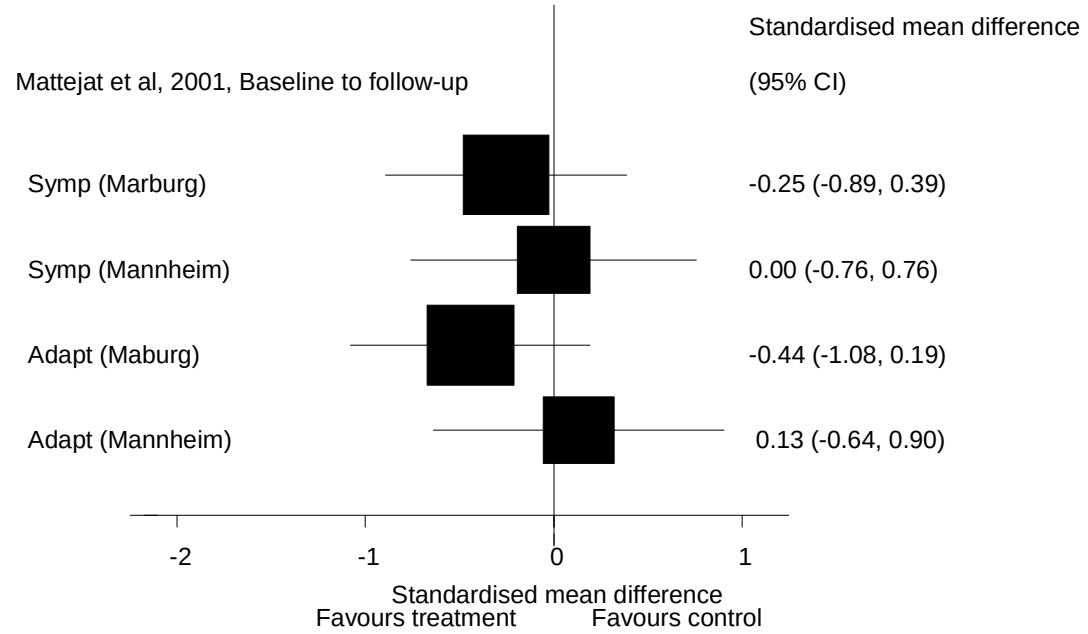
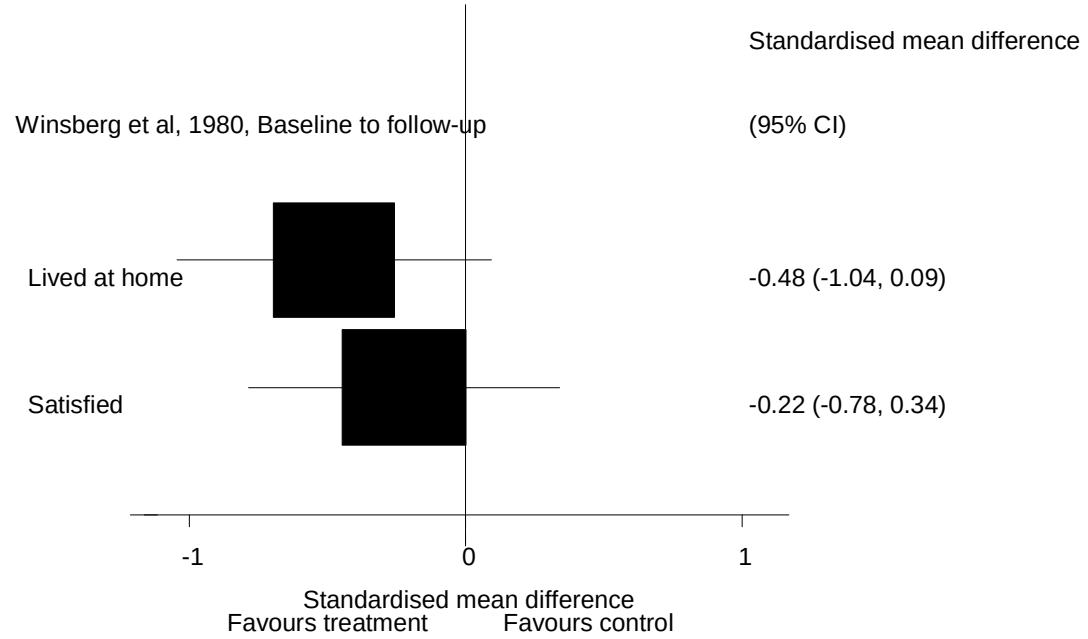


Figure 10 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to 6 months follow up) Winsberg et al1980



Non-randomised evidence with a controlled, comparison group

Intensive home treatment vs. outpatient treatment vs. residential setting

Sherman et al (1988) report that at 5 year follow-up 0/5 children with autism treated at home were in residential settings, compared with 1/5 of children treated as outpatients and 2/5 children treated in a residential setting. Further outcomes from this trial are not reported as data were presented according to the structure of the setting based on rater observation and not on type of treatment received.

Intensive home treatment vs. inpatient treatment

Parent rated, child rated and blinded assessment of symptoms
After accounting for baseline differences Schmidt et al (2006) found that children with emotional and behavioural disorders receiving inpatient care experienced greater improvement compared with children receiving treatment at home on the following measures at the point of discharge: Mannheim Parent Interview of Symptoms (mean difference 1.80, 95% CI -0.15 to 3.75; SMD 0.97, 95% CI 0.51 to 1.43), SGKJ Global Assessment Score (mean difference -0.50, 95% CI -0.91 to 0.09; SMD 0.50, 95% CI 0.5 to 0.95), Parent Rating of family functioning (mean difference 0, 95% CI -0.36 to 0.36; SMD 0.46, 95% CI 0.01 to 0.90), child rating of global behavioural change (mean difference -0.50, 95% CI -0.83 to -0.17; SMD 0.62, 95% CI 0.17 to 1.06); and also on blinded assessment of level of functioning (mean difference -0.50, 95% CI -0.89 to -0.10; SMD 0.52, 95% CI 0.07 to 0.96), and psychosocial environment (mean difference -0.60, 95% CI -0.99 to -0.20; SMD 0.62, 95% CI 0.17 to 1.07) (see Figure 10 below).

Between baseline and 12 month follow-up most of these differences disappeared, though global ratings of behavioural change by parents favoured home treatment (mean difference 0.60, 95% CI 0.04 to 1.16; SMD -0.49, 95% CI -0.93 to -0.04) (see Figure 11 below).

Figure 11 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to discharge at 3 months) Schmidt et al, 2006

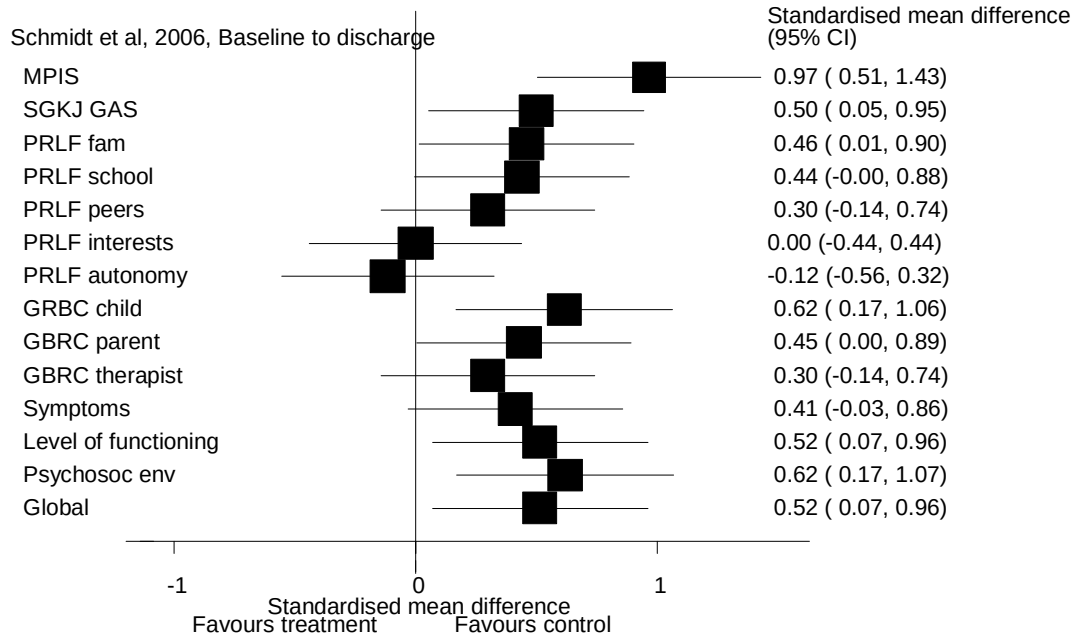
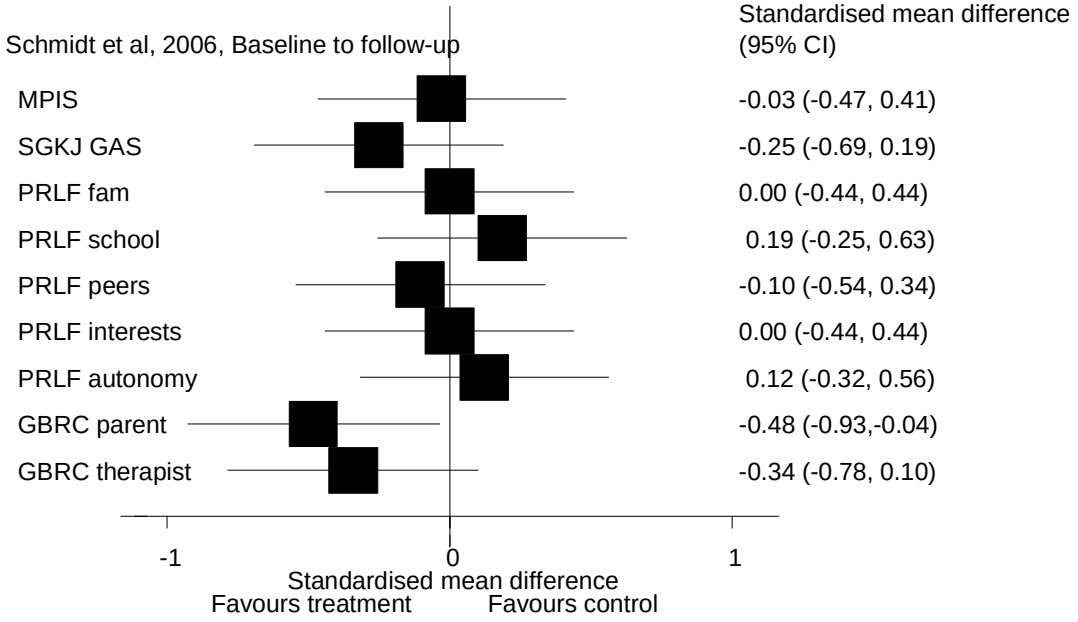


Figure 12 Forest plot of standardized mean differences for each measure of outcome with 95% CIs (baseline to follow up at 12 months) Schmidt et al 2006



[GBRC= Global rating of behaviour change; MPIS=Mannheim Parent Interview; PRLF=Parent Rating of Level of Function; SGKJ=Global Assessment Score]

Box 3

Synthesis of descriptive information: intensive home treatment

Therapeutic approaches/ goals/ problem-solving approach: Home treatment uses a child and family centred approach with importance placed on addressing difficulties with the psychosocial environment (Schmidt et al, 2006; Sherman et al, 1988), and alleviating individual psychiatric symptoms (Mattejat et al, 2001). Cognitive behavioural therapy and parent training were employed by one home treatment programme to improve educational skills (Schmidt et al, 2006). Home treatment is used when family dynamics are a significant factor, and is based on ecological theories from family systems using systemic-developmental models of symptomatic behaviour (Seelig et al, 1992; Gopel et al, 2000), together with family-centred problem-solving approaches (Erkolahti et al, 2004).

Home treatment programmes are typically focused on the needs of the individual and the family (Erkolahti et al, 2004; Schmidt et al, 2006; Seelig et al, 1992). During the course of treatment unattainable aims are dropped and newly arising acute problems are included in therapy (Gopel et al, 2000). Goals are agreed with the family and can include reducing aggressive behaviour and other maladaptive behaviour and increasing prosocial behaviours, control of school truancy and supervision of school tasks (Schmidt et al, 2006; Sherman et al, 1988; Gopel et al, 2000; Lay et al, 2001). One programme stated that the primary goal was to prevent out of home placement (Seelig, 1992), and another stated that an aim was to stabilise therapeutic success beyond the home treatment period for positive long term outcomes (Gopel et al, 2000).

Family characteristics: In some programmes parents were invited to address problems in their own lives (Erkolahti et al, 2004; Sherman et al, 1988; Seelig et al, 1992), including maternal psychiatric distress (Winsberg et al, 1980). Parents receive training in behaviour modification techniques and direct instruction to improve child self help, social and leisure skills (Lay et al, 2001). Techniques are taught to parents to reduce inappropriate behaviours, encourage child management and promote education skills (Sherman et al, 1988). Family therapy and crisis intervention techniques are used to assess the adolescent in the context of their family and develop therapeutic goals for the adolescent and their family. The goal is to move the family beyond their current state of crisis towards increased competency and problem-solving skills (Schmidt et al, 2006). Parents are helped to support the adolescent function in new ways with the aim of returning to work or school.

Operational characteristics: Home treatment begins with an evaluation of the child during a home visit, with the treatment goals being determined by a behavioural assessment (Erkolahti et al, 2004; Lay et al, 2001). Specific interventions are arranged on the basis of individual and family need (Lay et al, 2001). The duration and intensity of intervention varies between home treatment programmes, and may include the

Box 3 continued: intensive home treatment

introduction of social services for the family (Winsberg et al, 1980). A home treatment programme in Bradford, UK described a 24 hour team response for assessment purposes, with increased clinical activity in the form of home visits and phone calls over 7 to 10 days (Worrall-Davies et al, 2005). Another study, set in San Jose, California, started with a multiple impact assessment and intervention session which lasted between 6 to 10 hours (Seelig et al, 1992). The intervention was usually limited to 90 days with follow up services provided by other agencies (Seelig et al, 1992) or in an outpatient setting (Winsberg et al, 1980). Winsberg et al (1980) have reported a longer period of intervention of 6 months with each child spending between 1 to 3 weeks in psychiatric hospital at

the beginning of treatment. In the home treatment of young children with autism therapists worked with families between 6 to 8 hours per day on a 5 day week basis over a 6 month period (Sherman et al, 1988). In Germany three home treatment programmes provided treatment each for approximately 3 months and involved therapeutic meetings either once or twice weekly (Schmidt et al, 2006; Lay et al, 2001; Gopel et al, 2000).

There are differences in the professional background of home-treatment providers. Some teams employ community based case workers or psychiatric nurses supervised by a child psychiatrist, with consultation services offered by an educational psychologist (Winsberg et al, 1980; Schmidt et al, 2006). Erkolahti et al (2004) describes a broad multidisciplinary team including child psychiatrists, psychologists, psychiatric nurses and a clinical social worker to treat patients with emotional-behavioural disorders. In the final example the home treatment team included three clinical social workers, an adolescent counsellor and a child adolescent psychiatrist who was responsible for team consultations, evaluations and treatment (Seelig et al, 1992).

2.1.7.4 Intensive outpatient services

Two randomised controlled trials evaluated the effectiveness of intensive outpatient treatment, one in the US (Silberstein et al, 1968) and one in the UK (Byford et al, 2007). Three non randomised studies with a comparison group assessed the effectiveness of an outpatient based crisis intervention programme. One study was based in the United States (Blumberg et al, 2002) and two in Canada (Greenfield et al, 1995; Greenfield 2002). A synthesis of information describing intensive outpatient services is presented in Box 4.

Randomised evidence

Intensive outpatient services vs. generic outpatient counselling (with or without drug treatment)

One randomised controlled trial evaluated the effectiveness of intensive outpatient services compared with generic outpatient counselling (with or without drug treatment) for children with emotional and behavioural disorders (Silberstein et al, 1968). This four arm trial also evaluated the impact of parental counselling and child drug therapy on psychiatric hospital use. There were no statistically significant differences between the families receiving some active intervention and those receiving a placebo drug with no counselling in terms of being hospitalised or having requests for hospitalisation over 26 weeks, getting into police difficulties, being judged as community adjusted or remaining in a regular classroom (see Table 4 at the end of the report). Overall, 46/48 children were retained in the community over the 26 week trial period but there were 22 parental requests for hospitalisation related to 16 children during this time. It was not possible to calculate SMDs with the available data.

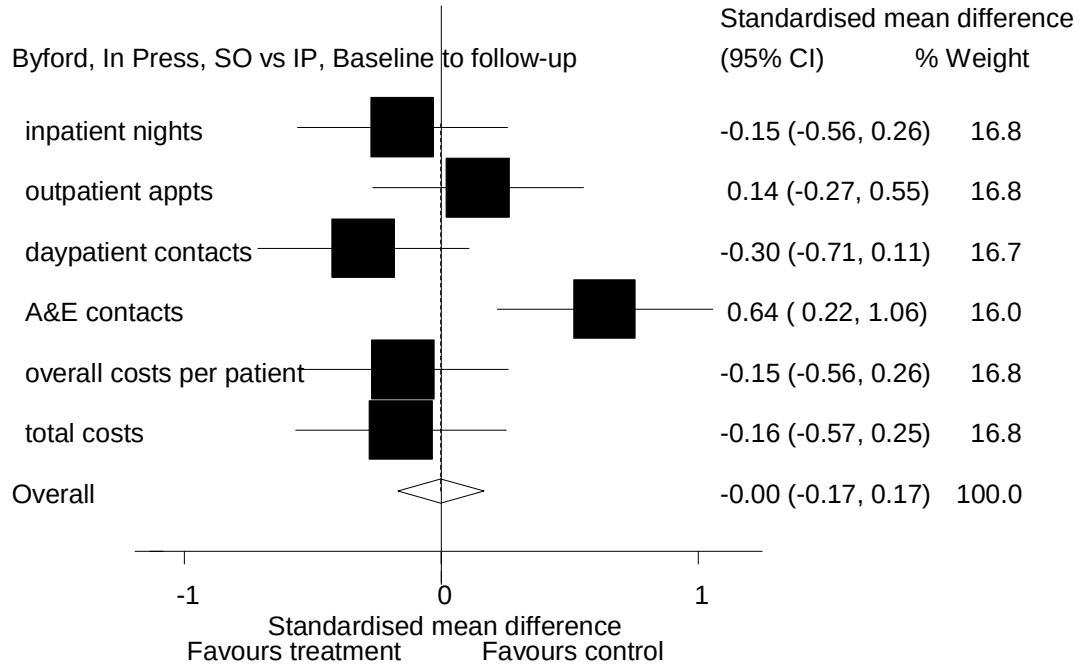
Outpatient services vs. inpatient care vs. generic outpatient care

Byford et al (2007) assessed the cost-effectiveness of a specialist outpatient service as an alternative to inpatient care, and compared this type of care with inpatient care or generic outpatient care for adolescents with anorexia nervosa in the United Kingdom. At 2 year follow-up no statistically significant differences were observed between the inpatient group and the specialist outpatient group in terms of the number of post-discharge nights spent at an inpatient facility, outpatient appointments, or day patient contacts. The control group had significantly fewer Accident & Emergency (A&E) contacts (see Figure 13 below and Table 4 at the end of this report), though this translates to a mean of 1 (sd 2) contacts in the specialised outpatient group, compared with a mean of 0 (sd 1) contacts in the other two groups.

Cost effectiveness

Clinical costs of care per patient over 2 years based on their use of inpatient, outpatient, day hospital and A&E services did not differ. Furthermore, there were no statistically significant differences between groups in terms of overall cost of care per patient when clinical, educational and community services were combined. Interestingly those allocated to general outpatients used more resources compared with the other two groups, which is reflected by an increased, though non significant, cost.

Figure 13 Forest plot of standardized mean differences for resource use with 95% CIs, Specialist outpatient (baseline to 2 years follow up) Byford et al, 2007

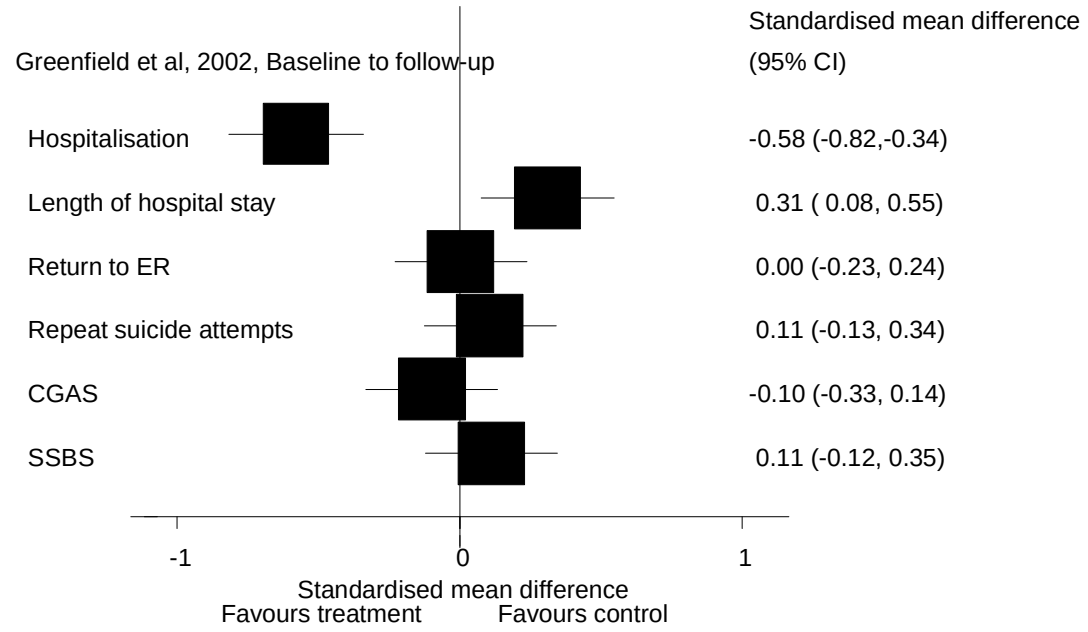


Non-randomised evidence with a controlled, comparison group

Intensive rapid response outpatient services vs standard outpatient services

Greenfield et al (2002) reported statistically significant differences favouring a rapid-response outpatient service over standard care in terms of hospitalisation rates for suicidal youth. At 6 months follow-up, 28/158 (17%) of patients served by the rapid-response clinic had been hospitalised compared with 55/128 (43%) of patients from a comparison group who received standard care (difference -25%, 95% CI -36% to -15%; SMD -0.58, 95% CI -0.82 to -0.34). However, after adjusting for baseline differences, the rapid response outpatient group had significantly more days in hospital at 6 months follow up (mean difference 2.7 days, 95% CI 0.68 to 4.73; SMD 0.31, 95% CI 0.08 to 0.55) (see Figure 14 below). There were no statistically significant differences in return visits to the emergency room or repeat suicide attempts between groups. Furthermore, there were no statistically significant differences in scores on the Children's Global Assessment Scale and Spectrum of Suicidal Behaviour Scale at 2 or 6 month follow-up (see Table 5 at the end of this report).

Figure 14 Forest plot of standardized mean differences for resource use with 95% CIs (baseline to 6 months follow up) Greenfield et al 2002



[CGAS=Children's Global Assessment Scale; SSBS=Spectrum of Suicidal Behaviour Scale]

Outpatient crisis intervention programme vs. historical control group

Blumberg (2002) assessed the impact of a community based crisis intervention programme as an alternative to inpatient admission for children with emotional and behavioural disorders at risk of harming themselves or others. Before the implementation of the crisis intervention programme, during the period 1993-1995, hospital utilisation was a mean of 3.59

hospital beds per day (SD 1.63) for every 10,000 eligible children. After the introduction of the crisis intervention programme, during the period 1996-1998, utilisation was a mean of 2.78 hospital beds per day (SD 0.73). The authors reported that none of the 465 children using the crisis intervention service had self-harmed or put others at risk of harm during the study period.

Outpatient crisis intervention programme vs. historical control group
In a second study of a crisis intervention programme for suicidal adolescents, Greenfield et al (1995) have also reported a statistically significant reduction in hospitalisation rates associated with the intervention (difference: -16.1%, 95% CI -21.8% to -10.4%; p<.001). However, no differences between the treatment group and a historical comparison group were observed in terms of repeat visits to the emergency room over one year. There were no recorded deaths amongst the treatment group in a four year follow-up period.

Box 4

Synthesis of descriptive information: intensive outpatient treatment

Therapeutic approaches/ goals/ problem-solving approach: A variety of specialist, intensive outpatient services are provided for high risk children considered too vulnerable for management in generic outpatient clinics (Gutstein et al, 1988). Specialist outpatient services aim to alleviate child crisis through behavioural change facilitated by specialist intervention with children and their families (Blumberg et al, 2002). Silberstein et al (1968) described an intensive parental counselling programme involving weekly therapy sessions in behavioural management, combined with medication for children with emotional and behavioural disorders. In the treatment of anorexia nervosa in the UK services provided by specialist outpatient clinics included cognitive behavioural therapy, parental counselling, dietary therapy and multi-modal feedback on weight management (Byford et al, 2007).

Some outpatient clinics operate a rapid-response, intensive crisis management service for suicidal youth to identify the nature of the psychiatric crisis, explore precipitating events, look at individual strengths and weaknesses and work with the young person's support system (Greenfield et al, 2002; Blumberg et al, 2002; Greenfield et al, 1995; Gillig et al, 2004; Ruffin et al, 1993). Treatment aims to reframe misconceptions, maladaptive behaviours and poor communication patterns that affect the youth or their family.

Treatment modalities may include family therapy (Blumberg et al, 2002; Gutstein et al, 1988), psychodynamic counselling, medication and behavioural management techniques as well as cognitive behavioural therapy (Greenfield et al, 1995). One crisis stabilisation programme in South Carolina operates within an emergency room setting with outreach staff contacting vulnerable young people at risk of psychiatric hospitalisation (Ruffin et al, 1993). Another outreach service within the UK provides continuity of care for young people with anorexia nervosa by engaging with patients and their families in their homes and at CAMHS outpatient clinics (Jaffa et al, 2004). Crisis management services are based on the individual needs of the patient (Greenfield et al, 2002; Greenfield et al, 1995; Blumberg et al, 2002; Gutstein et al, 1988) and suicidal risk is carefully managed through rapid, detailed clinical assessment usually within 24 hours of referral (Greenfield et al, 1995; Gillig et al, 2004; Gutstein et al, 1988). Crisis management services have a specific goal of reducing psychiatric admissions (Greenfield et al, 2002; Blumberg et al, 2002; Greenfield et al, 1995; Jaffa et al,

2004), by offering intensive support, follow-up services and facilitating access to other outpatient services (Greenfield et al, 1995).

Box 4 continued: Synthesis of descriptive information: intensive outpatient treatment

Family characteristics: Parents can be involved in the treatment process through attendance of counselling sessions at specialist outpatient clinics (Silberstein et al, 1968; Blumberg et al, 2002), or they may provide a more consultative role for crisis management services (Greenfield et al, 2002) to identify multigenerational family patterns that contribute to the existing psychiatric distress (Greenfield et al, 1995).

Operational characteristics: Some specialist outpatient services operate for a fixed period of time such as 26 weeks (Silberstein et al, 1968); while other services vary in duration according to individual need (Greenfield et al, 2002; Blumberg et al, 2002; Waller et al, 2003). Crisis management services have a shorter period of intervention ranging from a mean of 26.5 days at Terry's Clinic, Delaware State (Blumberg et al, 2002) to a mean 17.69 weeks (SD 12.50) at Montreal hospital, Canada (Greenfield et al, 2002) or just 6 to 10 sessions of 3 hours duration at Houston Child Guidance Centre, USA (Gutstein et al, 1988). In Dallas USA, patients with anorexia nervosa attend a specialist outpatient clinic at least once per fortnight during the acute stage of treatment. The mean number of days of treatment was 49.86 (SD 26.4) (Waller et al, 2003).

Specialist outpatient services are multi-disciplinary in their staffing arrangements; therapeutic teams usually include psychiatrists, social workers, psychiatric nurses and psychologists (Silberstein et al, 1968; Greenfield et al, 2002; Blumberg et al, 2002; Gillig et al, 2004). Unlike home treatment where one therapist is assigned to each child, outpatient specialist services may involve families meeting different therapists during their treatment thus requiring a high level of professional communication (Blumberg et al, 2002) and regular clinical supervision (Greenfield et al, 1995). Brief hospitalisation is sometimes permitted to provide respite care to families and allow time to mobilise kin for therapeutic purposes (Gutstein et al, 1988).

2.1.7.5 Intensive day treatment

One non randomised comparison study, based in Canada, compared intensive inpatient day treatment with inpatient care (Cornwall and Blood, 1998). A synthesis of studies describing intensive day treatment is presented in Box 5.

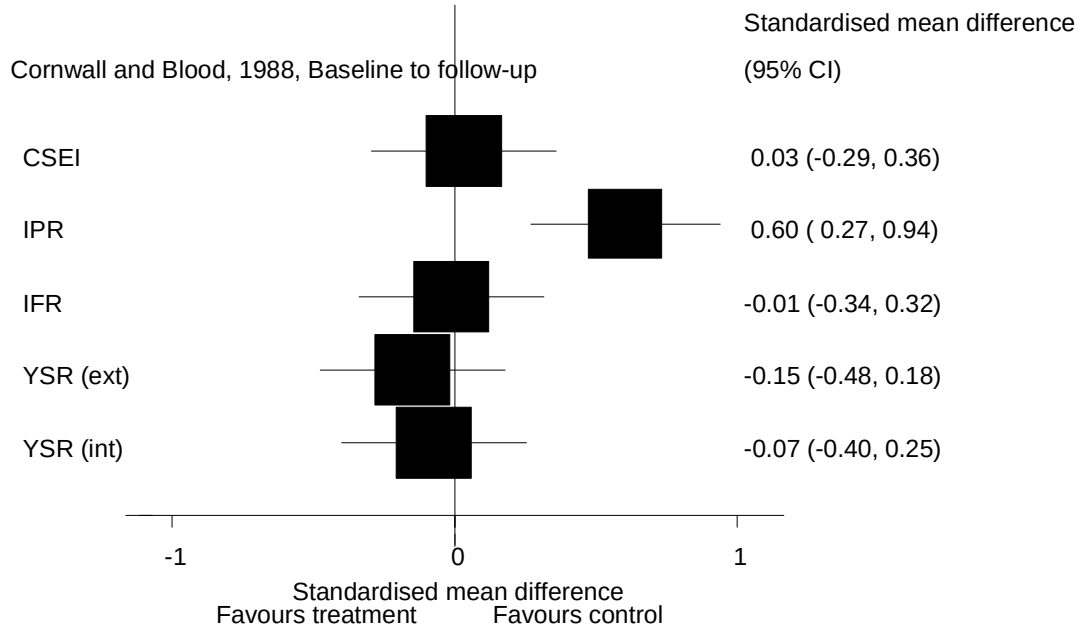
Non-randomised evidence with a controlled, comparison group

Intensive day treatment vs. inpatient treatment

Cornwall and Blood (1998) compared a day treatment programme with inpatient care for 106 adolescents with substance abuse disorders. At 6 month follow-up interview, there were no statistically significant differences between groups in terms of being in school or at work, having problems with the law or with people they lived with ($p>0.10$). However, the authors report that more inpatients had enrolled in self-help or counselling services

than day treatment patients after discharge (p<0.05). Furthermore, inpatients had significantly more substance abuse issues at baseline than day treatment patients but not at 6 month follow-up (p<0.05). Adjusting for baseline differences children in the day treatment group had less improvement in peer relations compared with children in inpatient care (SMD 0.60, 95% CI 0.27 to 0.94) (see Figure 15 below). At baseline the scores for peer relations were higher in the intervention group than the control group.

Figure 15 Forest plot of standardized mean differences for with 95% CIs (baseline to 6 months follow up) Cornwall and Blood, 1998



[CSEI=Coopersmith Self Esteem Inventory; IPR= Index of Peer Relations; IFR=Index of Family Relations; YSR=Youth Self Report]

Box 5

Synthesis of descriptive information: intensive day treatment

Therapeutic approaches/ goals/ problem-solving approach: Day hospitals provide an intensive service using a variety of psychotherapeutic approaches delivered to individual patients, as well as in group settings (Blackman et al, 1986; Gabel et al, 1988; Granello et al, 2000; Grizenko et al, 1997; Sack et al, 1987). Some day programmes use a psychodynamic approach (Grizenko et al, 1994), while others rely on contingency management that rewards good behaviour and withdraws privileges for aggression or defiance (Kotosopoulous et al, 1996; Ginsberg et al, 1987; Kettlewell et al, 1985). Specific treatment components may be employed so that children are encouraged to express themselves

Box 5 continued: Synthesis of descriptive information: intensive day treatment

verbally without the need for acting out behaviour (Grizenko & Sayegh, 1990; Kiser et al, 1996), as well as improving self-esteem by adjusting child expectations (Grizenko et al, 1997). One Canadian day programme in Edmonton for emotionally disturbed youth uses a systems orientated psychodynamic

approach incorporating some elements of the therapeutic community and offering both structured and unstructured group based psychotherapies to promote psychosocial adjustment (Blackman et al, 1986). Day hospitals usually include a special education programme, as well as art therapy, psychodrama, psycho-educational programming, medication management and family therapy (Blackman et al, 1986; Ginsberg et al, 1987; Granello et al, 2000; Grizenko et al, 1997; Sack et al, 1987; Robinson & Rapport, 2002; Kotosopoulous et al, 1996). Leisure trips are also sometimes incorporated into day treatment programmes as a reward measure, and also as an opportunity to teach social skills (Kettlewell et al, 1985). A day hospital service in Arizona includes a daily patient community meeting to resolve any problems from the previous day and to set weekly treatment goals collaboratively with young people (Ginsberg et al, 1987).

Day treatment programmes aim to prevent inpatient hospitalisation or out of home placement (Gabel et al, 1988; Granello et al, 2000; Grizenko et al, 1997; Waller et al, 2003), as well as reducing the use of specialist community services (Kiser et al, 1996). Treatment goals include improved psychosocial adjustment in relationships with self, peers and family (Blackman et al, 1986), as well as changing behaviour within home, community and school settings (Granello et al, 2000; Robinson & Rapport, 2002) and strengthening community resources for young people (Linnihan et al, 1977). Although the focus is on the child's individual problems, attention is also given to the dynamics of the inter-related systems of family and community in formulating treatment plans (Kiser et al, 1984).

Family characteristics: Day hospital programmes may provide family therapy for youth living at home (Blackman et al, 1986; Ginsberg et al, 1987; Grizenko et al, 1997; Linnihan et al, 1977), and may rely upon parent feedback on behaviour at home to determine privileges afforded to patients during day treatment (Ginsberg et al, 1987; Robinson & Rapport, 2002). Family therapy is used to help families understand the relationship between maladaptive patterns of family functioning and child behavioural difficulties, as well as to learn specific behavioural management techniques (Grizenko et al, 1997). Prior to discharge from day hospital, families may be referred to outpatient or community services to further support their needs, and day programmes may collaborate with external agencies in securing additional services for individual patients (Robinson & Rapport, 2002; Linnihan et al, 1977).

Box 5 continued: Synthesis of descriptive information: intensive day treatment

Operational characteristics: The duration of treatment varies between day hospital programmes according to service characteristics and the mental health disorder under treatment (Linnihan et al, 1977). Attendance is usually full-time (Cornwall & Blood, 1998; Ginsberg et al, 1987; Grizenko et al, 1997; Sack et al, 1987; Hussey & Guo, 2002), although some providers offer less intensive evening programmes (Blackman et al 1986) or morning or afternoon-only sessions for children with different disorders (Linnihan et al, 1977). Children may be grouped according to their chronological age (Kiser et al, 1984) or for a specific clinical need (Huestis & Ryland, 1990). There is usually a low ratio of staff to children (Grizenko and Sayegh, 1990; Sack et al, 1987; Milin et al, 2000; Linnihan et al, 1977; Kiser et al, 1986). However, intensity of service varies between individual patients, with the Children's Day Hospital in New York Hospital Cornell Medical Centre reporting length of stay as 17.4 months on average for children at risk of out of home placement, compared with 26.4 months for children not recommended for out-of-home placement (Gabel et al, 1988). Furthermore

intensity of treatment can vary according to the stage of treatment, with one partial hospitalisation programme offering one session per week during acute treatment of anorexia nervosa to once every other week during later stages (Waller et al, 2003). One Canadian day programme at the Douglas Hospital reports that children with emotional disturbance attend their service for a mean of 5.5 months, which includes 2.5 hours of special education per day (Grizenko et al, 1994).

Day treatment programmes are staffed by a multidisciplinary team including clinicians, teachers and occupational therapists (Blackman et al, 1986; Granello et al, 1990; Grizenko et al, 1994; Kiser et al, 1987, Huestis & Guo, 1990), with regular supervisory, problem-solving and information-exchange meetings between professionals (Ginsberg et al, 1987; Grizenko and Sayegh, 1990; Linnihan et al, 1977; Kettlewell et al, 1985). An on call 24 hour response service is sometimes included where child psychiatrists may be called upon for support and consultation, or arrangements can be made for emergency shelter, brief hospitalisation or medication review to alleviate crisis (Ginsberg et al, 1987; Grizenko et al, 1994; Huestis & Guo, 1990).

2.1.7.6 Intensive Case Management

One non randomised study assessed the effectiveness of intensive case management as an alternative to inpatient admission; this study was based in the United States (Evans et al, 1996). A synthesis of information describing intensive case management is presented in Box 6.

Non-randomised evidence with a comparison group

Intensive case management

Evans et al (1996) compared hospitalisation rates amongst 917 children with serious emotional and behavioural disorders for two years prior to their enrolment in case management with those at two years after enrolment. They observed a decrease in hospitalisation rates from approximately 10 days per month shortly before enrolment to about 2 days per month following enrolment ($p<0.05$). Furthermore, Evans et al (1996) report that those enrolled ($n=917$) used more hospital days compared with those not enrolled ($n=392$). Use of inpatient services dropped significantly after enrolment to less than 1 day per quarter, compared with 3 days per quarter for non-enrolees ($p=0.01$). This study does not report standardised measures of psychosocial outcome for both the treatment group and their comparison group.

Box 6

Synthesis of descriptive information: intensive case management

Therapeutic approaches: Intensive case management is offered to children with severe emotional disorders within their home, community and school settings (Evans et al, 1996). Children may spend time in residential care (Fabry et al, 2004) prior to rehabilitation in the community. Individualised service plans are designed to meet the child's needs in the least restrictive setting of care (Bruns et al, 1995; Duchnowski et al, 2004). Case managers determine the needs of individual children through assessment and consultation with families and professionals (Evans et al, 1996). One form of case management is known as

'wraparound' where special education and mental health services collaborate to provide care for children (Eber et al, 1996; Clarke et al, 1992; Fabry et al, 2002; Yoe et al, 1996). With wraparound treatment interventions include an initial assessment of family strengths, identification of unmet needs, and delivery of services and development of trust with families (Eber et al, 1996). Difficult child behaviour is identified as part of a psychological interaction among biological, cognitive, social and environmental domains (Fabry et al, 2004). Children are enrolled in case management following referral by an interagency review committee, and then prioritised for individual clinical need (Evans et al, 1996; Bruns et al, 1995; Eber et al, 1996). Crisis plans are developed to ensure that services are delivered in a timely manner (Eber et al, 1996; Yoe et al, 1996).

The main goal of case management is to arrange a package of community based services to prevent psychiatric hospitalisation or out of home placement (Evans et al, 1996; Duchowski et al, 2004), as well as containing costs on behalf of financial providers (Burns et al, 1993; Schwartz & Wernert, 1993; Barfield et al, 2005). Case managers can operate on an expanded broker model where they advocate on behalf of their clients and arrange services for them (Evans et al, 1996). Improvements in child functioning are expected through parental training

Box 6 continued: Synthesis of descriptive information: intensive case management

and specific therapeutic interventions for children such as cognitive behavioural therapy, play therapy and social skills training (Clarke et al, 1992).

Family characteristics: Families are invited to participate in case management meetings to determine clinical need (Bruns et al, 1995; Eber et al, 1996; Burns et al, 1993; Barfield et al, 2005). Family support specialists may also be involved in wraparound case management to outline specific treatment objectives and engage with families within the ecological framework of care using cognitive behavioural approaches to help parents cope with their children's behaviour, secure welfare help and resolve crisis situations (Clarke et al, 1992).

Operational characteristics: Crisis case management operates on a 24 hour, 7 day week basis in order to support families within the community (Evans et al, 1996; Bruns, 1995). The case management team include a case manager, an advocate and relevant service providers (Bruns, 1995). Multidisciplinary team are involved in the delivery of services, including post-doctoral students of psychology (Clarke, 1992; Yoe, 1992). The duration of case management depends on the individual needs of the child and their family (Evans et al, 1996; Eber, 1996), although some home services end after one year (Clarke, 1992). The New York model described by Evans et al (1996) reports a mean of 421 days (SD 320 days) of service enrolment. Case managers have a low caseload and a fixed financial budget for providing services for children in their care (Evans et al, 1996).

2.1.7.7 Therapeutic foster care

No randomised or controlled studies evaluating the effectiveness of therapeutic foster care as an alternative to inpatient treatment were identified. One uncontrolled study was identified (Mikkelsen et al, 1993). Descriptive information from this study is presented in Box 7 below.

Box 7

Synthesis of descriptive information: Therapeutic foster care

Therapeutic approaches: Therapeutic foster care as described by Mikkelsen et al (1993) provides short-term, acute care for children with severe emotional-behavioural disorders. Children are placed with trained foster carers as an alternative to a more restrictive care setting such as residential or inpatient facilities. The MENTOR programme provides intensive assessment, diagnostic services, crisis stabilisation and brief treatment of patients and their natural families, as well as comprehensive case management and discharge follow-up planning. The specific aims are to prevent inpatient hospitalisation, and return children to their natural homes by working collaboratively with their families. Individualised treatment plans are developed in collaboration with the child and their parents. Therapeutic interventions include family therapy, parenting skill development, training and rehabilitation to prepare children for reintegration into their homes.

Family characteristics: Assessment, support and intervention with the natural family are essential components of the programme. Specific family goals are constructed to facilitate the return of children to the home.

Operational characteristics: MENTOR is a rapid response service offering placement within a few hours for children that cannot be retained within their own homes. Foster carers receive comprehensive training and have responsibility for no more than one child at a time. The duration of treatment is determined by individual need, but Mikkelsen et al (1993) report an average treatment period of 16.8 days. Progress is monitored by a clinical coordinator who makes multiple home visits per week to foster carers' homes, followed by multi-disciplinary utilisation review meetings. Clinical workers engage in individual and family therapy during their visits, while assessing patient status and supporting their foster parent. A psychiatrist is available for diagnostic consultations, medication evaluations and to contribute to the treatment planning process. The therapeutic foster care intervention is supported by a multidisciplinary team of staff including clinicians, nurses and psychologists (Mikkelsen et al, 1993).

2.1.7.8 Residential care

No randomised or controlled studies evaluating the effectiveness of residential care as an alternative to inpatient treatment were identified for this systematic review. However, one uncontrolled study was retrieved where residential care was an alternative to inpatient care for adolescents with emotional-behavioural disorders (Blackman et al, 1991). Descriptive information from this study is presented in Box 8 below.

Box 8

Synthesis of descriptive information: residential care

Therapeutic approaches: Residential care provides an intensive level of care that can serve as an entry point for community care (Blackman et al, 1991). In Canada, Blackman et al (1991) report on their residential care programme for adolescents with emotional-behavioural disorders as being multi-modal with a family-systems orientation. Treatment is based on a psychodynamic, systems orientated framework including family therapy, special education, parent counselling and medication management. Specific treatment goals focus on the patient, their family, school and community life (Blackman et al, 1991). Treatment aims to develop ego and superego skills in adolescents thus alleviating psychiatric distress, preparing them for community rehabilitation and developing healthy family relations (Blackman et al, 1991).

Family characteristics: Family therapy is a component of treatment (Blackman et al, 1991).

Operational characteristics: Duration of treatment varies according to the individual patient from 0.5 to 98 months (Blackman et al, 1991). Staffing in residential care is typically multi-disciplinary, includes nurses, child care specialists, teachers, psychologists, a child psychiatrist and a house parent or key worker responsible for building relationship skills in the youth. Regular team meetings are arranged to determine clinical progress of individual patients.

3.1 Mapping study

3.1.1 Aims

The mapping exercise aimed to identify the range and prevalence of the different models of service providing an alternative to inpatient mental health care for children and young people in the UK.

3.1.2 Methods

The mapping exercise comprised four separate surveys:

1. NHS child and adolescent mental health providers in England, Wales, Scotland and Northern Ireland
2. Independent child and adolescent mental health providers in England
3. Secure settings in England where young people under 18 years of age are resident to ensure we collected data on CAMH in-reach teams which might otherwise not have been captured by the main survey (Young Offenders Institutions, Secure Training Centres, Local Authority Secure Children's Homes)
4. Local Authorities in England to ensure we collected data on CAMH in-reach teams which might otherwise not have been captured by the main survey.

Data were also collected on Early Intervention Psychosis services that are part of adult mental health provision, but support those under 18 years of age.

3.1.2.1 Development of the questionnaires

1. NHS child and adolescent mental health providers in England, Wales, Scotland and Northern Ireland

England

For the development of the questionnaire for CAMH services in England, we collaborated with the CAMHS Mapping team at the University of Durham. The CAMHS Mapping team is funded by the Department of Health (Department of Health, 2007) to monitor the development and delivery of mental health services for children and adolescents in England through the annual collection of data on specialist CAMH Tier 2 to 4 services.

This collaboration provided us with access to a unique database of CAMHS providers in England, and a framework on which to build a structured survey of Tier 3 and 4 services. All CAMHS providers have a system in place to submit annual service related data to the CAMHS Mapping. We supplemented this data by requesting more detailed information about Tier 3 and 4 services aimed at managing young people with serious mental health problems outside an inpatient setting who would otherwise be at risk of being admitted to an inpatient unit if the alternative service was not available.

We built on the existing framework used by the CAMHS Mapping team to include data on the types of alternative services, the way that these services function and the context in which these services operate.

The questions included in the survey reflected the concerns highlighted by the National Service Framework for Children, the ongoing CAMHS Mapping exercise, and discussions with clinicians. Questions fall into the following categories:

i) Organisational features:

- Tier level
- the length of time the service had been operational
- description of the service
- any innovative practice
- setting of the service
- therapeutic approach
- capacity
- caseload during sample period
- age range supported
- staffing: numbers of staff and their professions
- 24 hr cover
- emergency assessment and care
- whether any specific groups of young people were targeted by the service - for example 16 to 17 year olds, those with a learning disability, or young people in contact with the criminal justice system
- other provider agencies involved in the delivery of the service
- the geographical area covered by service
- any outcome assessment measures used
- the operation of the service in relation to inpatient services: the impact on inpatient admissions, the mental health needs of young people supported by alternative and inpatient services, and the need for inpatient provision

ii) Population supported by the service:

- age, gender and ethnicity of young people supported during sample period
- referral sources
- duration of wait before assessment and before provision of service
- duration of treatment
- main presenting reasons for admission
- primary presenting disorder
- alcohol and/or drug abuse
- special characteristics of young people supported: looked after children in foster care or residential care; mild or moderate/severe learning disability
- if the service did not support specific groups of young people (for example those at risk of self harm, young people with a forensic history, a learning disability, or history of substance abuse)

Caseload data was requested for the 6 month period from June 1st 2006 to 30th November 2006.

3.1.2.2 Pilot

We piloted the questionnaire with a sample of clinicians identified by the grant holders, which led to a small number of minor changes.

The final 38-item questionnaire (Appendix 4) was made available by the Durham team for secure completion online by all provider organizations in England. The online survey was designed so that the dataset would be compatible with the main Durham CAMHS Mapping dataset.

Scotland, Wales, Northern Ireland

The questionnaire used for CAMHS in England was used as the basis for the survey of alternative services in Scotland, Wales, and Northern Ireland, with a few minor changes where appropriate to reflect regional differences in service organization and delivery. The questionnaire was distributed both electronically and by post.

2. Independent Child & Adolescent Mental Health Providers in England

The questionnaire used for CAMHS in England was used as the basis for the survey of alternative services by independent providers, with a few minor changes where appropriate. The questionnaire was distributed both electronically and by post.

3. Secure settings in England

A brief questionnaire for secure settings was developed in collaboration with Dr Nick Hindley, Child & Adolescent Forensic Psychiatrist to ensure we captured all CAMHS in-reach services. The questionnaire asked for information about:

- all mental health services available for all young people under 18 years of age who have complex mental health problems
- who provides these mental health services and where they are delivered
- training of the professionals providing these services, and their links to local and national CAMHS
- whether any of these services could be considered an alternative to inpatient care
- how many young people were supported by any alternative services in the previous 6 months
- whether a mental health needs assessment of the institution/centre/children's home had ever been carried out

4. Looked After Children in Residential Care

Because young people in local authority residential care are at high risk of experiencing complex mental health problems we wanted to ensure we captured data on CAMHS in-reach services that may not be picked up by the Durham survey. We therefore supplemented the main survey, conducted in collaboration with Durham, with a brief exploratory survey to ascertain if CAMH services provided in residential settings acted as an alternative to inpatient care. A two-item questionnaire was developed that investigated:

- all mental health services available for young people (<18yrs) looked after in residential care who experience acute mental health crisis who are not admitted to inpatient care
- whether any non-NHS mental health services were utilized for these young people

3.1.2.3 Sample

England
The CAMHS Mapping team contacted all providers of child health services in England via email. A total of 212 NHS Trusts and 152 PCTs were contacted and invited to participate in the survey. Not all of these organizations provided child and adolescent mental health services. The sample was over inclusive to ensure that we did not miss any potential providers of alternative services.

Wales

Twelve of the thirteen NHS trusts in Wales provide CAMH services. The Head of CAMHS for each Trust was identified and contacted initially to establish whether they provided any alternative services. The following seven Trusts were identified as providing alternative services and were invited to participate in the survey:

Cardiff & Vale NHS Trust
Swansea NHS Trust
Conwyn & Denbighshire NHS Trust
Gwent Healthcare NHS Trust
West Wales CAMHS: Ceredigion and Mid Wales NHS Trust
Pembrokeshire and Rhondda NHS Trust Carmarthenshire NHS Trust

Scotland
Lead Child and Adolescent psychiatrists for each of the 15 Health Boards in Scotland were identified and invited to participate in the survey by Dr Graham Bryce, Chair of the (National) Children and Young People's Mental Health Steering Group. Clinicians from the following Health Boards providing alternatives to inpatient mental health care agreed to complete the survey:

1. Argyle & Clyde (South)
2. Ayrshire & Arran
3. Boarders
4. Dumfries & Galloway
5. Fife
6. Grampian
7. Greater Glasgow
8. Lanarkshire
9. Tayside

Northern Ireland

Provision of alternative services in Northern Ireland was established through contacting CAMHS leads in each of the four regional Health and Social Services Boards. Contact details were provided by the Assistant Director of CAMHS for Homefirst Community Trust, in the Northern Health and Social Services Board. One alternative service was identified and the lead clinician for this service was contacted and invited to participate in the survey.

Independent providers
Independent providers of child and adolescent mental health services in England were identified through examination of the Healthcare Commission registered service providers list, the Royal College of Psychiatrists Directory

of Child & Adolescent Mental Health Inpatient Units, and the Young Minds Directory of Child & Adolescent Mental Health Services.

In total 28 independent providers were identified. Each was contacted initially by telephone to establish whether they provided any alternative services. Six providers reported that they provided at least one alternative service, and were invited to participate in the survey. Five additional organisations did not respond to initial enquiries, and so their status as providers of alternative services was not known. However these 5 providers were also sent questionnaires and invited to participate in the survey.

Early intervention in psychosis – adult mental health services

Information on Early Intervention in Psychosis services in England is gathered as part of the annual adult mental health service mapping carried out by Mental Health Strategies, a mental health management consultancy, on behalf of the Department of Health. Mental Health Strategies provided some limited information on EIP services provided by adult mental health providers that support young people under the age of 18 years.

Secure settings

Young Offenders Institutions (YOIs) are facilities run by the Prison Service and the private sector (one YOI) and accommodate 15 to 21-year-olds. There are seventeen Young Offenders Institutions (YOIs) in England that accommodate young people aged 18 years and under. The Healthcare Manager of each Institution was contacted to determine who provided mental health services for those under 18 years. The lead clinician or manager of the mental health team was contacted and invited to participate in the survey. If the contact details of the mental health lead were not available the survey was sent to the Healthcare Manager (3 YOIs).

Secure Training Centres There are 4 Secure Training Centres (STCs) in England, all of which accommodate young people less than 18 years of age. The Healthcare Manager of each STC was contacted to determine who provided mental health services. The lead clinician for 3 Centres was contacted and invited to participate in the survey. One Centre requested that the survey was sent to and completed by the Healthcare Manager.

Local Authority Secure Children's Homes There are 21 secure children's homes in England – 20 are run by Local Authorities, and 1 is run by a private organisation. All 21 secure children's homes were contacted by telephone to determine who provided mental health services to the young people in their care. We invited the lead clinician for 16 of the residential units to participate in the survey. Where staff at the unit were unable to identify a mental health lead, the survey was sent to an appropriate member of staff (unit manager (2), healthcare manager (1) or operations manager (1)). One secure children's home was in the process of possible closure and was excluded from the survey.

Looked After Children in Residential Care

We conducted a supplementary survey of services for looked after children in residential care to see if we could ascertain details of mental health services that were targeted at these children and that might not be captured by the main survey. We contacted all 150 Local Authorities in England to obtain details of the service manager for Looked After Children in residential

care in each area. Service managers of 138 Local Authorities were invited to participate in the survey. Three Local Authorities did not have any residential children's homes, and it was not possible to establish contact information for service managers in 9 authorities.

Reminders
Reminders were sent via email to all non-responders: England CAMHS – 5 reminders; Wales and Scotland CAMHS – 2 reminders; Northern Ireland CAMHS – 3 reminders; Independent providers – 2 reminders plus 2 telephone calls; forensic settings –2 reminders; Local Authorities – 1 reminder.

3.1.3 *Results*

3.1.3.1 England

Of the 212 NHS Trusts and 152 PCTs contacted 109 provide child and adolescent mental health services, and 62/109 of these provide services that are an alternative to inpatient mental health care. Forty six trusts, providing a total of 78 services, completed the survey. Forty four of these trusts were identified through CAMHS Mapping (44/65; 71%). In addition we identified two PCTs providing specialist mental health services. Data for all alternative services in England are presented in Table 9 at the end of this report.

Non-responders
All CAMHS providers that had registered for the survey but not entered any alternative services (N=28/109), and all providers that did not register for the survey (N=37/109), were contacted to check if they provided any alternative services. This yielded one additional alternative service, though no further data were provided. We examined the Durham Mapping data for all the remaining CAMHS providers whose status as an alternative service provider was still unclear (N=39). Whilst this data could provide only limited information, it was possible to ascertain whether any services provided by each Trust or PCT were likely to be alternatives to inpatient care. We classified these services as providing an alternative to inpatient care if:

1. They supported young people with complex or serious mental health problems *and* the service was either:

2. Tier 4 day service, intensive outreach or home support, or intensive treatment foster care.

or

3. Tier 3 service providing intensive support.

This established a further 17 CAMHS providers who potentially provided an alternative to inpatient care, giving a total of 18 providers of alternative services that had not submitted data as part of the survey, and for which only very limited data were available from the Durham Mapping dataset. The alternative services provided by these 18 non-responders were as follows:

Intensive day service N=7
Intensive outreach service N=2
Intensive treatment foster care N=3
Intensive home support (provided by inpatient/day service) N=1

An additional 14 services provided day places attached to inpatient service.

Types of services providing an alternative to inpatient mental health care

Eight categories of alternative service types were identified (Table 7). Data for each of these services are in table 8 and 9 at the end of the report.

Table 7

Intensive day services 13/78 (17%) Intensive outpatient services 11/78 (14%) Intensive home treatment services 11/78 (14%); Intensive treatment foster care 1/78 (1%) Other intensive outreach 8/78 (10%) Crisis intervention service 5/78 (6%) Early intervention in psychosis service 22/78 (28%) Other specific therapeutic programme and service types 7/78 (10%)*
*Specific therapeutic programmes (n=4) and *other* types of services (n=3) were merged into one category

The length of time the services were operational varied. Data were available for 40/78 services (51%), and of these the mean length of time a service had been in operation was 4 years (sd 4.0), range 0.5 to 21 years (rounded up to the nearest 6 months). The most recent service development was an EIP service (3 EIP services from one trust) which started in October 2006; the longest running service was an intensive day service within an adolescent unit.

Organisational features

The operation of the service
The majority of services provided an assessment within 24 hours of referral or by the next working day (29/51; 57%). Approximately one in five services (11/51; 22%) provided 24 hour cover, and 13/51 (26%) provided emergency out of hours care. The services most frequently providing this type of response were those providing crisis intervention (assessment within 24 hours, 3/3; out of hours care, 2/3) and early intervention for psychosis (assessment within 24 hours, 12/16; out of hours care, 5/16). The majority of referrals came from other NHS mental health services (183/476; 38%), or from primary health care (152/476; 32%).

The total number of places available across these services was 462, and the capacity of each service at any one time varied from 3 places to 60 (this range did not include one EIP service that had an overall capacity of 670 places, approximately 130 of which would have been for <18s). The mean number of places was 18.5 (sd 14). The number of children and adolescents supported during the sample period of 1st June 2006 to 30th November 2006 by all services reporting caseload data was 1313.

The majority of new cases (92%; 169/184) had to wait less than 4 weeks to be assessed following referral, and 77% (350/453) had to wait less than 4 weeks for treatment to commence following assessment. Treatment lasted less than 4 weeks for 23% of young people (293/1266) to over 53 weeks for

25% (311/1266). The duration of treatment was less than 4 weeks for the half of the young people receiving intensive outreach services 108/214 (50%) and for only 15% (2/13) of those receiving intensive home treatment. Duration of treatment was likely to be longest for those receiving intensive outpatient treatment with 22% (112/509) receiving treatment for 53 weeks or more.

Therapeutic approach
All services reported providing individual therapy, with the majority of services also providing family therapy (84%) and pharmacotherapy (84%); this was evenly spread across the different service types. Of the 29 services providing additional details of the therapeutic approaches used 17/29 (59%) mentioned CBT.

Setting
The setting of services varied with many services operating across more than one setting by providing an outreach service. This was common across services, not just services described as intensive outreach. For example a service could be based in a psychiatric unit or a community based clinic and also provide intensive treatment in a young person's home. Examples of these types of service include crisis intervention services (n=3/3), early intervention services (n=12/15) and intensive outpatient services (n=3/7). The majority of services (n=44) covered an urban area (population >200,000) and/ or a large town (population 50,000 to 200,000). Some services operated in remote rural areas (6/39; 15.4%) 13 provided services to a rural area, though none were exclusive to these areas. All types of services were provided to rural areas, with the exception of the intensive outreach services. All 4 intensive outreach services, for which information was available, covered an urban area only.

Outcome measures
More than three quarters (23/30; 77%) of all services for whom information was available utilised some form of outcome measure or scale. The CAGS for practitioners was the most frequently used scale (11/29, 38%). HoNSCA and the SDQ for parents were utilised by 33% (10/30) of services, and the SDQ for children was utilised by 30% (9/30).

<u>Population supported by the service:</u>
The majority of young people supported by these services were male (891/1363; 65%). This applied to most of the service types, apart from crisis intervention services and the "other therapeutic programmes", both of which supported a greater proportion of females. Thirty nine percent (534/1363) of young people admitted were 14 years and under.

Young people were admitted with a range of presenting disorders [see tables 8 and 9 at the end of the report]. The most likely presenting disorders were emotional disorders, psychotic disorders, or eating disorders. The most frequent presenting disorder varied across service types: intensive outpatient services reported the most frequent disorder as eating disorder; crisis intervention services as deliberate self-harm; other intensive outreach services as emotional disorders and deliberate self-harm; and other specific therapeutic programme as eating disorders. Thirteen percent (192/1491) presented with more than one disorder. A few services targeted specific groups of young people with 27.5% targeting 16 to 17 year olds, 24% young people with a learning disability and 16% young people in contact with the criminal justice system.

Few services reported any exclusion criteria for admission to these alternative services. Young people with a moderate or severe learning difficulty were those most frequently not accepted (7/46; 15%), followed by those with a forensic history or who presented a high risk to others (3/46; 6.5%). Day service and outpatient services were the most likely service types to report exclusion criteria.

Impact of alternative services

Participants were invited to comment on a number of issues that addressed the relationship between alternative services and inpatient care.

The Impact of alternative service on the number of young people admitted to inpatient care

The majority of respondents who answered this question (17/23; 74%) reported that their alternative service had reduced the number of inpatient admissions in their area. Five of these services had collected data that supported this. Respondents also highlighted the impact of their alternative service on reducing the length of inpatient stay (n=5), and the benefits of enabling the patient to remain in the community or family home (n=2).

Mental health needs of young people treated by the alternative service compared with those receiving inpatient care

Unfortunately, most responses to this question suggested that it had not been fully understood with respondents describing service aims such as prevention of stigma, promoting 'secure attachment' between parents and their child and maintaining social networks rather than the mental health needs of patients admitted to their services. Of 24 responses received, 8 answered the question as intended. One service estimated that the young people supported had similar levels of severity and/or complexity of mental health needs as those admitted to inpatient care. The other 7 respondents reported that the needs of the young people supported by their alternative services were possibly less severe than those admitted to inpatient care.

Need for inpatient provision alongside the alternative service

Of 22 responses received, 3 did not address the issue, 2 commented that good links with inpatient services are vital, and 2 reported a perceived need for additional inpatient services. Fourteen of the other 15 services (93%) stated that inpatient care remains essential for some young people, and that, for example, "a proportion of complex cases will always require inpatient treatment". Two of these services stated that the success of the alternative services was dependent on access to inpatient beds. One other service stated that inpatient care in their area "remains an issue", with young people often being admitted to a paediatric ward whilst a mental health bed is located, and 2 reported that they were reliant on private inpatient provision when NHS beds were full.

Comparisons with inpatient care

We compared the proportion of males and females admitted to these alternative services with the proportion expected based on inpatient

admissions, where approximately 54% of admissions are boys (Jacobs et al 2004). Significantly more boys (891/1363; 65.4%) than girls (472/1363; 34.6%) were admitted to these alternative services compared with inpatient units (Chi square 70.96 with 1 df; p<0.001).

3.1.3.2 Wales

All 6 alternative services identified in Wales took part in the survey. Service data was available to varying degrees for all services, and caseload data was provided by 4 (Table 10).

Types of services providing an alternative to inpatient care

Types of services were as follows: intensive day services (n=2), intensive home treatment services (n=2) and 2 services that were categorised as 'other'. These two 'other' services provided a combination of both intensive day support and intensive home treatment and outreach, according to need.

The length of time that these services had been operational ranged from 2 to 15 years (mean 8.5 years). The longest running service was a day service that operated in a hospital setting, and the most recently developed service was one of the combined day and home treatment services.

Organisational features

Operation of the service

Half of the services (3/6) provided assessment within 24 hours or the next working day, and 2 provided 24 hr cover. No services provided emergency out of hours care. Half of all referrals for which information was provided were internal referrals (50/100; 50%), and one third were from social services (30/100; 30%).

Total capacity of the service was provided for just two services, which together provided support for 14 young people at any one time. The number of young people supported during the sample period ranged from 2 to 120, and totalled 162 across all services providing data (4/6). The mean number of cases supported was 40.5 (sd 53.8). One of the combined day/community intensive services supported the greatest number of young people (n=120).

Information on duration of wait to assessment, duration of wait to treatment, and duration of treatment was provided by 3 services. More than half of all new cases (77/140; 55%) waited less than four weeks for an assessment following referral; 37% (52/140) waited between 4 and 12 weeks. The majority of new cases (104/140; 74%) waited less than four weeks between assessment and the beginning of treatment. Just over half of the young people supported received treatment for between 14 and 26 weeks (74/140; 53%). Treatment lasted for more than one year for 21% (29/140) and for less than 4 weeks for 6% (8/140). Duration of treatment varied within all services providing data.

Therapeutic approach

All 6 services provided individual therapy and family therapy; 5 provided pharmacotherapy, and 4 provided group therapy. All services also provided some additional information about their therapeutic approach. All provided CBT (6/6), 3 mentioned milieu therapy, 2 mentioned solution-focussed therapies, and one reported using DBT.

Setting

The two intensive day services were provided exclusively in a hospital setting. Two services were provided in both a hospital or specialist mental health centre and the home, along with a number of other settings such as community based clinics, education establishments and social services settings. The other 2 services were provided exclusively in the home.

Half of the services (3/6) provided information about the geographical profile of the area they covered. None covered an urban area (population >200,000). All 3 covered rural or small town areas, 2 covered remote rural areas, and 1 covered an area that included a large town.

Outcome measures

All services (6/6) utilised some form of outcome measure or scale. The CGAS for practitioners and the SDQ for parents were both utilised by 5 of the services, the SDQ for children was utilised by 3, and HoNSCA by 2.

Population supported by the service

More than half of the young people supported by those services providing caseload data were female (83/142; 58%), with almost half (61/142; 43%) aged between 16 and 18. Two services were for adolescents (12-18 and 13-18 years), one was for younger children (5-12 years), and three were for both age groups (0-18 tears, n=2; 5-18 years, n=1).

Three services provided information on primary presenting disorder. One service reported that all the young people supported (n=100) had more than one disorder. For the other 2 services, the most common presenting disorder was emotional disorder (n=15), followed by autistic spectrum disorder (n=7) and eating disorder (n=6). Only one service, one of the combined day/community intensive services, reported no exclusion criteria. Of the other 5 services, all excluded young people with moderate/severe learning disabilities. Other exclusion criteria reported included drug/alcohol abuse (4/6), forensic history (3/6), a high risk to others (2/6), and homelessness.

Impact of alternative services

Impact of alternative service on the number of young people admitted to inpatient care

All services provided a response to this question, although only 3 answered the question as intended. All 3 reported that the alternative service had led to a major reduction in the number of inpatient admissions. One service also highlighted the impact of their alternative service on reducing the number of young people being placed in secure services or in adult mental health services. Another respondent reported that their alternative service had increased their ability to work with a wider range of families, some of whom may have not been referred to the service if it had been more centralised.

Mental health needs of young people treated by the alternative service compared with those receiving inpatient care

Unfortunately, all responses to this question suggested that it had not been fully understood, and none answered the question as intended. Instead respondents described a reduced risk of stigma, care that could straddle home and school, joint working, a timely and tailored service, and treating young people with complex mental health needs.

Need for inpatient provision alongside the alternative service

Of 6 responses received, 5 stated that inpatient care remains essential for some young people, though 4 reported that the need would be for only a small number of referrals. The other respondent stated that "during the sample period, no children were deemed as being in need of inpatient provision".

Northern Ireland

Only 1 alternative service was identified in Northern Ireland. Service data and limited caseload data was available for this service (Table 11).

Types of services providing an alternative to inpatient care

The alternative service operational in Northern Ireland was an intensive day service. This service had been operational for approximately two and a half years.

Organisational features

Operation of the service

This service did not provide an assessment within 24 hours or the next working day, emergency out of hours care, or 24 hour cover. All referrals during the sample period were internal referrals from other NHS mental health services.

Total capacity of the service at any one time was 6 people. During the sample period 30 young people were supported.

No information was provided on duration of wait to assessment, duration of wait to treatment, or duration of treatment.

Therapeutic approach

The intensive day service provided individual therapy (including CBT), group therapy, and pharmacotherapy.

Setting

The service was delivered exclusively in a hospital setting, and supported young people from all types of geographical area, from urban to remote rural.

Outcome measures

The service utilised the CGAS for practitioners.

Population supported by the service

More than two-thirds of the young people supported by the service were female (21/30; 70%). The service supported young people between the ages of 13 and 18 years. Most of those seen during the sample period were aged 15 (13/30; 43%) or 16-18 years (15/30; 50%).

Ethnicity data and information on primary presenting disorder was not available for any cases. No specific groups of young people were targeted by the service.

The service did report some exclusion criteria. The service excluded young people with moderate/severe learning disabilities, drug/alcohol abuse, or a forensic history, young people who might pose a high risk to others, and young people who are homeless.

Other HSSB areas currently without alternative services

Although the three other Health and Social Services Board areas in Northern Ireland did not have any alternative services up and running at the time of the survey, they all had plans to develop, in the near future, the kind of intensive community-based services that would have been included in the project.

Two HSSB areas were scheduled to adopt a similar model of crisis intervention service, aiming to work out of hours and to manage some young people within the home if suitable. These alternative services were due to begin operation in mid-2007.

An intensive crisis management team was also under development in the fourth HSSB area. This service is aimed at effective early intervention when a crisis looms, ensuring a hospital placement is effectively managed, and ensuring effective discharge.

Impact of alternative services

Impact of alternative service on the number of young people admitted to inpatient care

The alternative service in Northern Ireland reported that its operation had led to a significant reduction in frequency and duration of use of inpatient beds.

Mental health needs of young people treated by the alternative service compared with those receiving inpatient care

The service reported that the needs of the two groups of young people would be similar, but that "the determining factor would be the ability of our service to manage the risk presented".

Need for inpatient provision alongside the alternative service

This question was interpreted as asking about the location of the alternative and inpatient services in relation to each other and how closely they work together, and the response was that "opinions are mixed on this".

3.1.3.4 Scotland

We received completed surveys from 6/9 (67%) of the Health Boards. The following health boards do not provide intensive community services for young people with complex mental health needs, and inpatient services are not available within their geographical boundaries: Argyle and Clyde North, the Forth Valley, the Highlands, Lothian, Orkney, Shetland and the Western Isles.

One of the completed questionnaires was excluded from the analysis as the service was a Tier 2 service that did not provide an alternative to inpatient care, leaving 5 alternative services. Service data and caseload data were provided by 4 services, one respondent only provided a description of the service (Table 12).

Types of services providing an alternative to inpatient care

Types of services were as follows: 1 intensive outpatient service; 2 intensive outreach services, 2 early intervention for psychosis (EIP) services. One EIP service did not provide any detailed service or caseload data. The length of time that these services had been operational ranged from 3 to 15 years (4/4) (mean 7.5 years, rounded to nearest 6 months). The longest running service was an EIP service, and the most recently developed service was an intensive outpatient service that had previously been an intensive day service. The day service had been felt to be less flexible than an outpatient service, so staff were redeployed to offer frequent flexible outpatient appointments.

Organisational features

Operation of the service

Two (2/4) services provided assessment within 24 hours or the next working day, both of these are intensive outreach services. No services (0/4) provided emergency out of hours care or 24 hour cover. The majority of referrals were from other internal NHS mental health services (72/81; 89%).

Total capacity of the service was provided for 2 services, which together provided support for 55 young people at any one time. The number of young people supported during the sample period ranged from 6 to 45, and totalled 83 across all services providing data (4/4). One of the EIP services supported the greatest number of young people (n=45). The mean number of young people supported by a service during the sample period was 20.8 (sd 18.3).

The vast majority of all new cases (72/81; 89%) waited less than four weeks for an assessment following referral; 11% (9/81) waited between 4 and 12 weeks. All new cases seen for whom information was provided (74/74; 100%) waited less than four weeks between assessment and the beginning of treatment. Just over half of the young people supported received treatment lasting more than one year (39/70; 5%); this proportion is primarily accounted for by cases treated for more than one year by one of the EIP services (n=31). Duration of treatment varied across all the other services providing data.

Therapeutic approach

All services providing data (4/5) provided individual therapy, family therapy, and pharmacotherapy. Two also provided group therapy – one EIP service and one intensive outpatient service. All 4 services provided some additional information about their therapeutic approach: 4 provided CBT, and one intensive outreach service also mentioned brief solution focussed therapy and interpersonal therapy.

Setting

Two services were provided exclusively in a single setting: the intensive outpatient service in a community based clinic, and 1 EIP service in a hospital setting. The other 2 services that provided information were delivered in a range of settings.

All services covered rural areas. Two of these covered remote rural areas, an intensive outpatient service and one EIP service.

Outcome measures

All of the services providing information (4/5) utilised some form of outcome measure or scale. The HoNSCA utilised by 3 of the services, the SDQ for children was utilised by 2.

Population supported by the service

The majority of the young people supported by services providing caseload data were male (56/95; 59%), and most were aged between 16 and 18 years (45/95; 47%). Again, this proportion was mostly due to the number of 16-18 years old supported by one of the EIP services (n=34). Two services supported both younger children and adolescents (aged 0-16 and aged 0-18), and two supported adolescents. The EIP services also supported young adults (age range 14-22 years).

The primary presenting disorder for most young people supported by these services was psychotic disorder (50/78; 64%). Most of these (43/50; 86%) were seen by the EIP service. The second most frequent presenting disorder was emotional disorder (23/78; 29%). None of the services specifically targeted special groups of young people.

Only one service reported any exclusion criteria. The EIP service excluded young people with moderate/severe learning disabilities.

Impact of alternative services

Impact of alternative service on the number of young people admitted to inpatient care

Four of the five services provided a response to this question. All 4 reported that the alternative service had led to a major reduction in the number of inpatient admission. One service reported that average yearly inpatient admission had fallen from 27 to 2 since the introduction of the alternative service.

Mental health needs of young people treated by the alternative service compared with those receiving inpatient care

Unfortunately, most responses to this question suggested that it had not been fully understood, and only one answered the question as intended. This service reported that the needs of both groups of patients were relatively similar, "but clearly…our clients do not require inpatient care".

Need for inpatient provision alongside the alternative service

All 5 responses stated that inpatient care remains essential for some young people.

3.1.3.5 Early Intervention in Psychosis services – adult mental health

The 2007 adult mental health service mapping conducted by Mental Health Strategies recorded 153 EIP services in England that supported young people under the age of 18 (Table 13). The minimum age of service users ranged from 13 to 17 years (mean 14.3, sd 0.8), and the maximum age ranged from 24 to 65 years (mean 35.3, sd 4.5). Just under half of these services (69/152; 45%) specifically targeted young people of working age under 25 years. Most EIP services were delivered in multiple settings, and the majority were delivered in the community – at community mental health centres (106/151; 70%), other community venues (126/151; 83%) or in the service users' homes (124/151; 82%). EIP services were located across the whole of England.

Availability of EIP services varied. All (151/151) were always available during weekdays. Almost two-thirds (69/114; 60%) were always or sometimes available during weekday evenings, and 39% (41/105) were always or sometimes available on weekend days. Only 9% (9/95) were available at night.

3.1.3.6 Independent providers

Seven alternative services (provided by 6 organisations) were identified in the initial part of the project, 5 of which submitted data. Five additional organisations did not respond to initial enquiries, but were nevertheless sent questionnaires. None of these responded, although we were later able to establish alternative service provision status for 4 of these organisations: 1 did not provide any alternative services; 3 did provide alternative services – all intensive day services, one of which was a specialised eating disorders intensive day service. Unfortunately, as this information was obtained towards the end of the project, no service or caseload data was available for these 3 services to include in the project.
Of the services that did return completed questionnaires, all 5 provided service data and caseload data (Table 14).

<u>Types of services providing an alternative to inpatient care</u>

Types of services were as follows: intensive day services (n=3), intensive outpatient service (n=1) and 1 service that was categorised as 'other'. This service was a dialectical behaviour therapy (DBT) service. Two of the day services were specifically for the treatment of eating disorders.

The length of time that these services had been operational ranged from 6 months to 10 years (mean 4 years). The longest running services was a day service for the treatment of eating disorders, and the most recently

developed services were an outreach and a day service provided by the same young persons unit.

Organisational features

Operation of the service

Three services provided assessment within 24 hours or the next working day, and 3 provided 24 hr cover. Two services provided emergency out of hours care. The vast majority of referrals (34/39; 87%) were from NHS services.

Total capacity of the service was provided for 4 services, which together provided support for 38 young people at any one time. The number of young people supported during the sample period ranged from 1 to 31, and totalled 39 across all services. The mean number of cases supported was 7.8 (sd 13.0). The DBT service supported the greatest number of young people (n=34).

Information on duration of wait to assessment, duration of wait to treatment, and duration of treatment was provided by all 5 services. All new cases (39/39; 100%) waited less than four weeks for an assessment following referral; and all cases (39/39; 100%) waited less than four weeks between assessment and the beginning of treatment. Most of the young people supported received treatment for either less than 4 weeks (14/39; 35%), or between 4 and 13 weeks (13/39; 33%). No young people received treatment for more than 1 year. Duration of treatment varied within all services providing data.

Therapeutic approach

All 5 services provided individual therapy and family therapy; 4 provided pharmacotherapy, and 4 provided group therapy. All services also provided some additional information about their therapeutic approach. Three provided CBT, 2 mentioned DBT, and 2 provided psychoanalytic psychotherapy.

Setting

All services were provided in a hospital setting, two of the intensive day services exclusively so. The other services were provided in more than one setting.

Three services provided information about the geographical profile of the area they covered. Two covered an urban area, 2 covered rural or small town areas, 2 covered remote rural areas, and 2 covered areas that included a large town.

Outcome measures

All of the services utilised some form of outcome measure or scale. The HoNSCA utilised by 3 of the services, and the CGAS for practitioners was utilised by two.

Population supported by the service

The majority of the young people supported by services providing caseload data were female (34/39; 87%). Fifty nine percent (23/39) were aged between 16 and 18. All the services were for adolescents, although one supported children as young as 8 years old. One of the intensive day services for eating disorders supported adolescents and adults (age range 14-65 years).

Information on primary presenting disorder was also available for a very small number of cases. The majority for whom data was available presented with an eating disorder (5/8). None of the services targeted specific groups of young people.

All but one service (4/5) reported exclusion criteria. Three services excluded young people with moderate/severe learning disabilities, and three excluded young people who were homeless. Other exclusion criteria reported included being a high risk to others (2/5), or having a forensic history (2/5).

Impact of alternative services

Impact of alternative service on the number of young people admitted to inpatient care

Three of the five participating independent services responded to this question. One reported a single case where a young person who had been referred for inpatient care was managed with the support of the alternative service. The other two services stated that it was difficult to report on the impact on local inpatient care as the services were privately provided, and many of the young people supported came from a wide area. One respondent did state that anecdotally the use of the alternative service had enabled them to engage some adolescents that may otherwise have been reluctant to receive treatment.

Mental health needs of young people treated by the alternative service compared with those receiving inpatient care

All three services that provided a response to this question reported that the mental health needs of the two groups of young people were the same. Two stated that practical aspects such as physical needs or access to care were likely to be deciding factors in the choice of treatment.

Need for inpatient provision alongside the alternative service

One service reported that there remains a need for inpatient provision for a number of patients. Two other services provided responses that did not directly address the question: one claimed that it was “useful…for the outreach staff having easy access to senior staff”, and another that it was needed for “24 hour support and easy access to psychiatric review”.

3.1.3.7 Secure settings

Young Offenders Institutions

Of the 17 YOIs that were invited to participate in the survey, completed questionnaires were received from 11 (65%).

Four YOIs had access to on site 24 hour inpatient facilities, and one of these received input from regional forensic services. Specialist multidisciplinary forensic CAMHS in-reach teams provided mental health care in 5 YOIs. A mixture of local CAMHS and Adult mental health services provided support for young people with complex mental health needs at 4 YOIs, and a prison-based primary care team along with on-call CAMHS provided support at 1. The other YOI stated that none of the young people resident had complex mental health needs. A mental health needs assessment had been recently carried out for 6 YOIs (full assessment for 4; partial assessment for 2).

Specialist training for the professionals providing these services included forensic and child and adolescent training (3 YOIs), and child and adolescent mental health training (4 YOIs). One of these received CAMHS nursing plus adult psychiatry support. At 4 YOIs, none of the professionals providing mental health care (excluding on-call CAMHS support) had received specialist training to work with children or adolescents.

The individuals providing mental health services in 10 of the YOIs stated that they had good links to local and national CAMHS; 1 did not. Of these 10, mental health support to 6 was part of a local CAMHS service.

Mental health services available for young people with complex needs could be considered as alternatives to inpatient care at 4 YOIs:

> *"Sometimes the containment of the setting means that medication and treatment can be got on with quickly and effectively. This may be the best way of managing someone. A young person who may otherwise be admitted to inpatient care in the community can be treated effectively within a secure setting."*
>
> *"There have been a number of occasions when we managed severe cases of depression, psychosis, and behavioural and emotional disturbances in our institution, cases which couldn't have been managed in community, and would have normally required in-patient admission. However, when the risk to self or others becomes too high, then we do transfer our patients to in-patient facilities*."

The mental health services provided at these 4 YOIs were: 2 specialist forensic multidisciplinary in-reach teams; 1 session of adult psychiatry with CAMHS nursing in-reach; 1 session of adult psychiatry. The provider of mental health services to one YOI reported difficulty in delivering the service as desired, due to organisational constraints within the YOI.

YOIs - Non-responders

We were able to gather limited information about mental health services from the 6 YOIs that did not participate in the survey. Two YOIs received mental health support from specialist forensic CAMHS, and 1 from the local CAMH service. Young people at 2 YOIs received support from adult psychiatry (weekly – 1 YOI; bi-weekly – 1 YOI); the provider of services to one of these reported that the team could sometimes treat young people in the YOI more effectively in this secure setting than in the community. The sixth YOI did receive support from a visiting psychiatrist and a mental health

nurse, but it was not clear whether these were child and adolescent or adult services.

Secure Training Centres

All 4 STCs returned a completed questionnaire.

Mental health services available to young people with complex mental health needs at the Centres included a specialist multidisciplinary forensic CAMHS in-reach team at one STC, and a multidisciplinary CAMHS in-reach team at another. Mental health support for young people at the other 2 Centres was provided by privately contracted adult psychiatrists.

Specialist training of the professionals providing these services included both forensic and child and adolescent training at 1 STC, and child and adolescent training at one other; at 2 Centres none of those providing mental health services reported that they had received specialist training to work with children or adolescents.

The individuals providing mental health services in 2 Centres were part of local CAMHS. Providers of mental health services at the other 2 Centres reported that they did not have good links with local or national CAMHS.

Mental health services available for young people with complex needs were considered to be alternatives to inpatient care at 1 Centre:

> *"[The] service is equivalent to [an] outpatient service but because of [the] structured nature of environment and boundaries [we] can manage behaviourally disabled young people…Good communication and good teamwork of healthcare services enable young people with complex problems to be managed safely and effectively."*

The mental health support at this centre consisted of a visiting adult psychiatrist plus a clinical psychologist employed by the prison.

Secure Children's Homes

Of the 20 Secure Children's Homes invited to participate in the survey, completed questionnaires were received from 14 (70%).

Support for young people with complex mental health needs was provided by NHS CAMHS at 11 homes: specialist multidisciplinary forensic CAMHS in-reach team (n=2); specialist multidisciplinary Looked After Children CAMHS in-reach team (n=1); multidisciplinary CAMHS in-reach team (n=5); sessional or ad hoc CAMHS support (n=3). An independent multidisciplinary in-reach team was provided at one home, and mental health support was privately contracted at the remaining two (one child and adolescent psychiatry support, one general adult psychiatry support). The intensity and organisation of services varied from ½ a day a month through to a flexible multidisciplinary service which provides a screening assessment within 2 weeks of admission and a range of interventions tailored for the individual. In one case there was NHS provision of a specialist Children Looked After (CLA) Team, which included the provision of training to staff working in the home. Another unit described the increasing importance placed on working with community resources in order to facilitate the transition of young people back into the community. In contrast other units reported an absence of services for those with complex mental health needs.

The individuals providing mental health services in 11/14 homes stated that they had good links to local and national CAMHS; 1 did not. Of these 10, mental health support to 7 was part of a local NHS CAMHS service, and one was part of an independent CAMH service.

Mental health services available for young people with complex needs were considered as alternatives to inpatient care for 6 secure homes, and in some cases the unit provided an alternative to inpatient mental health services during the time that elapsed prior to admission, which could be several months.

> *"The [service] does not consider itself to be an alternative to inpatient care, as we are unable to provide the intensity of nursing and therapeutic care that would be available in an inpatient unit. In addition, the Young People are not admitted to these units for health reasons, but on Criminal and Welfare Orders... However, because we have a national catchment and are becoming more widely known, some placing Local Authorities are using some of our sites ... for Welfare placements partly because of our input; i.e. they do see our partnership as an alternative to inpatient provision when secure care is required."*

> *"Treatment in the context of secure care creates a special situation, an opportunity as well as a complex challenge. Such levels of care and treatment equal that found in hospital settings to some extent. Most admitted young people have severe emotional problems and may have a history of abuse, neglect and drug misuse"*

The mental health care available at these 6 homes included: 1 specialist forensic multidisciplinary in-reach team; 1 multidisciplinary team from an independent provider; 1 weekly support from a local CAMHS team; at 3 of the homes, a multidisciplinary community team working exclusively with young people who are resident in both secure and open provision.

Secure Children's Homes - Non-responders
Some information was collected on the types of mental health services available to the 5 secure homes that did not participate in the survey. One secure home received support from a specialist forensic CAMHS team, and two from local CAMH services. The other two secure homes reported some difficulties in accessing local services, particularly for young people currently resident in the home who were originally living in another area. One of these homes received some limited Clinical Psychology input from local CAMH services, and the other bought in private psychiatry time once a week.

Looked after children
Despite contacting Local Authorities in advance to obtain details of the service manager for Looked After Children in each area, the response rate from social services was poor at 28% (39/138). The majority of those responding reported using local CAMHS (32/39). CAMH services varied in the way they were delivered, with some respondents describing a dedicated service for Looked After Children. In one case the dedicated service provided a fast track service and in another a wraparound service where support systems are put in place, which may include working to prevent

hospitalisation. A few respondents described difficulties in accessing services when a young person is placed outside the local authority's area. Independent mental health services were purchased by some local authorities.

4.1 Discussion

We identified eight distinct models of care providing an alternative to inpatient mental health care for children and adolescents: multisystemic therapy (MST), family preservation/wraparound services, intensive outpatient services (which could include rapid outreach and crisis intervention), day hospitals, intensive home treatment, case management, therapeutic foster care and short term residential care. No randomised evidence was identified comparing intensive day treatment, intensive case management, residential care or therapeutic foster care with inpatient care or another alternative type of care.

Main findings – systematic review
Two randomised controlled trials evaluated the effectiveness of MST in the community as an alternative to inpatient or intensive community treatment (Henggeler et al, 1999; Rowland et al, 2005). In both trials a number of different outcomes were measured using self, caregiver and teacher reported data. The majority of differences were not significant. Henggeler et al reported improved functioning in terms of externalising symptoms for young people receiving home based MST. They also spent fewer days out of school and reported greater consumer satisfaction with their treatment programme. At short term follow up the control group had a greater improvement in terms of adaptability and cohesion, though this was not sustained at four months follow-up. Rowland et al reported small significant differences in fewer days spent in out of home placement for the MST group. A Cochrane systematic review of intensive MST for families and youth with social, emotional and behavioural problems across a range of settings found no evidence to support the use of this type of treatment compared with other interventions. However, this reflects the poor quality of the research evidence rather than the actual effectiveness of individual alternative services (Little et al, 2005).

Evidence for family preservation services as an alternative to inpatient care came from one RCT (Evans et al, 2003) and two non randomised comparisons (Wilmshurst et al, 2002; Pecora et al, 1991). Although no differences were observed in both groups for number of days in out of home placement, small improvements favouring the control group were reported at short term follow up for behaviour, and favouring those receiving family preservation services in terms of adaptability and cohesion (Evans et al, 2003). At six month follow up those receiving family preservation services had a greater improvement in social competency compared with the control group. However the control group had a greater improvement in self concept. The non randomised studies reported fewer out of home placements for those receiving the family preservation service.

Evidence for intensive home treatment came from two RCTs (Mattejat et al, 2001; Winsberg et al, 1980) and two non randomised comparisons (Sherman et al, 1988; Schmidt et al, 2006). No differences at follow up were reported between inpatient and home-treated children for the randomised controlled trials. One non randomised study (Schmidt et al, 2006) reported a greater improvement in symptoms and behaviour for the control group at long term follow up. These findings do not differ from a systematic review of home treatment for patients with mental health problems, where the majority of participants were over the age of 18 years,

which concluded that the evidence base for the effectiveness of this service was weak (Burns et al, 2001).

Two RCTs evaluated the effectiveness of intensive outpatient services and both reported no differences in behavioural or psychological outcomes for those receiving this form of care compared with children receiving no treatment (Silberstein et al, 1968), or inpatient care or generic outpatient care (Byford et al, 2007). Byford et al concluded that intensive outpatient services for young people with anorexia nervosa are as effective as inpatient care.

Cost effectiveness

An analysis of costs was attempted by one of the trials evaluating intensive home based MST as an alternative to inpatient treatment (Sheidow et al, 2000). However, the costs of the MST intervention and any outliers were omitted, therefore limiting the degree to which these results can be generalised. A second trial, reporting the results of the first economic evaluation of specialist outpatient care vs. inpatient care vs. generic outpatient care for adolescents with anorexia nervosa, reported no difference in costs between the three groups at 2 year follow-up. Interestingly, observed non significant differences were due to the length of time spent in hospital, with the general outpatient group spending almost as much time in hospital as the inpatient group. This lack of evidence on cost effectiveness is consistent with a recent report on the limited evidence from economic evaluations of early intervention services for psychosis (McCrone and Knapp, 2007).

Methodological issues

The quality of the studies included in this review was variable and most studies were under powered. Only 1 trial reported adequate concealment of allocation (Byford et al, 2007) and only 2 of the 7 trials conducted any blind rating of patient outcomes (Mattejat et al, 2001, Byford et al, 2007). Methodological problems limit the extent to which data from the non randomised studies can inform decision making. Multiple testing was a problem for all studies, but particularly for some of the randomised controlled trials which risked reporting a significant result by chance. In some studies up to 30 statistical tests were conducted with no adjustment for repeated testing. We included case studies, uncontrolled pre-post test studies and descriptive reports on the assumption that such research material would significantly add to our typology of services. However the standard of reporting associated with such study reports was poor, with the RCTs reporting these characteristics in greater depth. Many studies failed to report key features such as the duration or intensity of treatment, the staff involved or specific training requirements. This has important implications for replicating these interventions in future research, assessing treatment fidelity across studies, and for the development and implementation of evidence-based research programmes.

Despite the poor level of reporting, there appeared to be differences between studies in the ways in which alternative interventions were delivered, even when the overall therapeutic aims were broadly similar. In particular, the staffing arrangements for outpatient clinics vary with some rapid response crisis services employing an on-call psychiatrist and psychiatric nurses (Greenfield et al, 2002), whereas others are run by clinical social workers (Gillig et al, 2004). Furthermore, day hospital programmes differ in their therapeutic approach ranging from psychotherapy (Blackman et al, 1986; Gabel et al, 1988; Grizenko &

Sayegh, 1990; Sack, 1987) to a more social-behavioural model of intervention based on a system of reward and punishment (Robinson & Rapport, 2002; Kotosopoulos et al, 1996). Although obvious differences between the interventions can be identified, it is not possible to define the active ingredient within these interventions as each comprises a number of elements. Defining the precise therapeutic elements is also complex, including as they do the removal of the young person from their home in addition to prescribed therapies or drugs. Furthermore, standardising inpatient care is not possible as programmes differ in the make up of the multi-disciplinary teams they employ and the use of various therapies.

Main findings – mapping study

In the UK the predominant models of care are early intervention in psychosis services, intensive day services, intensive outpatient treatment and intensive home treatment, with day hospitals being the longest running service. Services are provided across urban, rural and remote rural areas. Variation in service provision between areas may reflect the different rationales for setting up these services. In some areas these alternative services were providing support to inpatient units and in others they were part of a general trend to reduce the use of inpatient beds.

In Wales and Northern Ireland current developments of alternative services are focussed on intensive community teams. In Wales there is ongoing discussion within one day unit about developing the kind of community intensive teams that are operating in other areas. The day service in Northern Ireland exists to support inpatient care and it is not clear how this will run with the planned expansion of inpatient care. Elsewhere in Northern Ireland, the focus is on developing intensive community teams. One service in Scotland redeployed staff from a day service to intensive outpatient care as this provided more flexible care. Intensive day services were the most frequent type of service provided by the independent sector, and two of these were for the treatment of eating disorders.

There was variation in the provision of CAMHS in secure settings. Responses highlight how, if mental health provision is suitably robust, the care given to a young person in a secure setting can be of a similar intensity as Tier 4 services provided in the community – albeit in a residential setting. In some instances it is possible that a young person with complex mental health needs may be managed within the institution, rather than having to be transferred to a secure mental health setting. However, this course of action is only possible if the young person consents to treatment in the secure setting and they do not require immediate transfer under the Mental Health Act. In practice young people
with severe presentations in the secure estate have to be treated at least initially in custody because of the delays in accessing hospital inpatient beds; intensive in-reach mental health services can provide this interim service.

Defining the alternative

Over the last three decades the emphasis in several countries has been on the provision of mental health services for children in the least restrictive setting. In some cases this is a drive to control costs, but more often it reflects the policy of providing flexible and local child and adolescent mental health services that are perceived to confer a therapeutic advantage. For the purpose of this research the move towards alternative models that avoid inpatient care created some difficulties both for the systematic review and the mapping study as the direct comparison was not always inpatient care

but another community based alternative. In addition, it was sometimes difficult to disentangle services which aimed ultimately to avoid hospital admission through the provision of an innovative service. Although some of these services were not initially set up to substitute for inpatient care, over time they considered their function as one of preventing hospital admission in the long term and in some cases providing an alternative to inpatient care. However, data to establish that this was achieved were not available. A further complicating factor is the threshold for admission which tends to be broader for these alternative services compared with inpatient care, albeit recognising that thresholds will vary across inpatient services. As a result some patients admitted to these alternative services may not have been admitted to inpatient care. Of note the expectation for some of the models providing an alternative to inpatient care was that the service would be provided for longer than the inpatient equivalent (Henggeler et al, 1999).

In the mapping study the definition and understanding of 'alternative' was highlighted by the way services described their function. For example, some services described themselves as a more appropriate model of care for young people rather than as an alternative in the sense of being a substitute for inpatient care. We also found that the distinction between Tier 3 and Tier 4 services was less clear for these types of intensive community services. In addition some Tier 3 services intervene to prevent a child or adolescent with a complex mental health problem progressing to a more severe condition requiring Tier 4 hospital admission. A few of these services identified themselves as providing an alternative to inpatient care. Responses to the open question highlighted the continued need for access to inpatient care as there would always be a small number of young people for whom inpatient treatment would be most appropriate. In addition, several studies included in the review reported that young people receiving an alternative to inpatient care were hospitalised while receiving the alternative service (Schoenwald et al, 2000; Silberstein et al, 1968).

Conclusions

Extrapolating from a mainly North American evidence base has some difficulties due to the multi payer system of health care, variation in the way young people access and use mental health care services and the large number of uninsured children who do not qualify for public sector services. The percentage and number of children under 18 years without health insurance was 11.7% and 8.7 million in 2006, with children living in poverty more likely to be uninsured (US Census Bureau, 2006). In addition inpatient mental health care length of stay in the US has declined steadily over the last fifteen years (Case et al, 2007). However, despite these difficulties there are some marked similarities regarding the policy focus of providing flexible, local care for these young people in the least restrictive setting (Burns et al, 1995; Department of Health 2004b). Other common ground includes initiatives that promote a systems approach to forge links between different agencies providing services and engaging families in treatment. In addition children, both in the US and UK, who experience serious mental health problems may access mental health care through a variety of different routes, including the criminal justice system. Unfortunately the studies included in this review, whether from the UK or elsewhere, were small. Although some health gains were reported for those receiving an alternative to inpatient admission this was not consistent across all measures of outcome, and the current evidence provides very little guidance for the development of services.

Other variables to be considered include the profile of young people admitted to these alternative services, the availability of local inpatient treatment and how mental health services operate within welfare and secure settings. Although the most severely unwell young people are likely to be referred for inpatient care, other factors may cause the profile of inpatient populations to differ from those admitted to alternative services. For example some services have been set up to admit specific disorders which may confer a therapeutic advantage, or reflect national policy, such as early intervention services for psychosis. Eating disorder is another condition targeted by specialised services. Amongst alternative services, eating disorder was the primary presentation for 14.5% of patients, and five of the services were set up to admit these patients. This compares with 23.3% (125/537) of young people resident in inpatient units, on a census day, in England and Wales who presented with an eating disorder (this does not include specialist forensic, secure, addiction, or learning disability units) (O'Herlihy et al, 2005). However, without data on patient profiles or the availability of services for each area it is not possible to interpret this difference.

Recommendations

Given the current concerns about the scale and management of mental health problems in children and adolescents, a high priority should be attached to improvements in the quality of the evidence base which currently provides very little guidance for the development of services.

- The evidence from both the systematic review and the mapping study highlights the need to move beyond monitoring, and identifying variation, in the types of services that are delivered across the country. What is needed is the collection of robust data on the profile and outcomes of users of these alternative services. Although creating an additional burden for service providers, capitalising on systems such as the Mapping Study run by the University of Durham could provide a mechanism to collect this data.

- Conducting research in this area is difficult on many levels and may provide an explanation for the lack of an evidence base supporting these alternative models of care. Designing a study and obtaining ethical approval to recruit young people with complex mental health problems is not straightforward. Even if this is achieved it is likely that the majority of young people would decline to consent to a randomised controlled trial where one of the alternatives is inpatient care. In addition researchers have to deal with problems in compliance and treatment fidelity. We suggest studies should be designed to compare different models of alternative services in terms of effectiveness and cost, focusing on those services that are most prevalent across the country. For example comparing intensive day treatment with home treatment or intensive outpatient treatment. It might be simpler in the first instance to design studies for services of specific disorders or symptoms (e.g., eating disorders, early onset psychosis) in order to be able to best compare data across sites.

- If it is not feasible to conduct randomised controlled trials of these interventions an alternative is to implement prospective comparative systems of audit. By this we mean the prospective collection of data across several centres, which will include baseline measurement at

admission along with demographic data. Outcomes should be measured using a few standardised robust instruments, for example the HoNOSCA system which has both clinical (Gowers et al, 1999) and user rated versions (Gowers et al, 2002). This would allow comparisons to be made of the differential effect of these services for children compared with adolescents, and between the different diagnostic categories.

- Interestingly few of the studies included in the review mentioned whether they consulted with service users and their parents, or the professionals treating them. This has made it difficult to establish the acceptability of the various alternative interventions included in this systematic review. Only two randomised controlled trials (Henggeler et al, 1999; Winsberg, 1980) included any measure of patient or care giver satisfaction. This has important implications for understanding the compliance and attrition problems associated with the delivery of mental health interventions. The evidence base could be improved by obtaining service users' views on any alternative service through qualitative research.

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Table 4 Randomised Controlled Trials

REFERENCES (95% CI calculated for differences at follow-up)
Rowland M, Halliday-Boykins C, Henggeler S, Cunningham P, Lee T, Kruesi M & Shapiro S (2005) A randomised trial of multisystemic therapy with Hawaii's Felix class youth. Journal of Emotional and Behavioural Disorders 13: 13-23. Intervention: Multisystemic therapy delivered at home/ outpatients vs. usual community services. Study population: Emotional/ Behavioural Disorders – 94% of youth met DSM-IV criteria with mean 1.81 (conduct disorder (39%), bipolar disorder (32%), attention-deficit disorder (23%), dysthymia (16%), major depression (13%) and post-traumatic stress disorder (10%). N=55 (MST=26, Control=29). Research Design: Randomised, controlled trial. Age ranges: 9 to 17 years (mean 14.5 years) Source: USA. Child/ Adolescent Mental Health Department Coordinators who manage care for all youth with intensive mental health needs contacted research staff whenever a youth was eligible for out-of-home placement. Recruitment staff then contacted the families to obtain consent.
TIME FRAME OF STUDY Baseline 6 month follow-up Statistically significant baseline differences in index delinquency (p=.009), with MST youth more involved in criminality. Authors state poor MST treatment fidelity. **Psychometric Properties** Child Behaviour Checklist: Higher scores =poorer cohesion and adaptability. 3 point scale with 118 items and 20 items measuring social competency Youth Risk Behaviour Survey: 8 item scale assessing interpersonal and self-inflicted violence. Higher scores=more dangerousness. Personal Experiences Inventory (Drug abuse): 12 item scale of self-reported sum of substance abuse over past 90 days. Self-report delinquency scale: 40 item self-report of minor and major offences over 3 months. Higher scores=greater delinquency. FACES: Higher scores=more cohesion/ adaptability in family functioning. Social support questionnaire: Parent self report satisfaction with available social support from 1='dissatisfied' to 6='very satisfied'). Total satisfaction is a sum of scores on 6 items.

Rowland M, Halliday-Boykins C, Henggeler S, Cunningham P, Lee T, Kruesi M & Shapiro S (2005) A randomised trial of multisystemic therapy with Hawaii's Felix class youth. Journal of Emotional and Behavioural Disorders 13: 13-23.			
	Mean (SD)		
	Treatment (N=26)	Control (N=29)	Mean difference (95% CI)
Child Behaviour Checklist (externalising-caregiver)			
Baseline	71.53 (13.06)	67.6 (9.4)	
6-month follow-up	65.93 (15.14)	64.6 (6.48)	1.33 (-7.13 to 9.79)
Child Behaviour Checklist (internalising-caregiver):			
Baseline	68 (14.31)	65 (15.55)	
6-month follow-up	62.73 (14.21)	61.53 (14)	1.20 (-9.17 to 11.6)
Child Behaviour Checklist (externalising-youth):			
Baseline	66.8 (12.74)	63.36 (10.93)	
6-month follow-up	60.53 (13.58)	63 (11.39)	-2.47 (-11.7 to 6.77)
Significant TIME differences (p=0.04) as decreased symptoms by follow-up.			
Child Behaviour Checklist (internalising-youth):			
Baseline	62.27 (9.79)	57.29 (14.42)	
6-month follow-up	57.07 (13.19)	59 (11.8)	-1.93 (-11.1 to 7.29)
	No significant TIME differences		
Youth Risk Behaviour Survey:			
Baseline	1.07 (1.49)	0.8 (1.32)	
6-month follow-up	0.13 (0.35)	1 (1.73)	-.87 (-1.80 to 0.0619)
No significant between group differences. No significant TIME differences			
Total drug use:			
Baseline	34.73 (42.89)	13.93 (38.21)	
6-month follow-up	14.73 (21.04)	3.53 (7.13)	11.2 (-0.187 to 22.6)
No significant between group differences. No significant TIME differences			
Self-reported minor delinquency:			
Baseline	26.33 (26.44)	5.53 (10.88)	
6-month follow-up	5.27 (8.25)	3.13 (5.26)	2.14 (-2.98 to 7.19)
Significant TIME differences with delinquency falling in both groups (p=0.005)			
Self-reported index offences			
Baseline	4.73 (7.59)	0.53 (0.99)	
6-month follow-up	3.2 (11.57)	1 (2.17)	2.20 (-3.82 to 8.22)
No significant between group differences. No significant TIME differences			
Arrests/ month in community (official records):			
Baseline	NOT MEASURED		
6-month follow-up	0.14 (0.19)	0.22 (0.41)	-.080 (-0.317 to 0.157)
	No significant between group differences		
(FACES) Family Adaptability:			
Baseline	27.1 (4.54)	25.14 (3.72)	
6-month follow-up	28.2 (2.91)	25.04 (4.7)	3.16 (-0.26 to 6.01)
	No significant between group differences No significant TIME differences		
(FACES) Family Cohesion:			
Baseline	33.17 (5.74)	35.24 (6.4)	

6-month follow-up	34.83 (5.3)	37.46 (4.9)	-2.63 (-6.38 to 1.12)
	No significant between group differences No significant TIME differences		

Rowland M, Halliday-Boykins C, Henggeler S, Cunningham P, Lee T, Kruesi M & Shapiro S (2005) A randomised trial of multisystemic therapy with Hawaii's Felix class youth. Journal of Emotional and Behavioural Disorders 13: 13-23.			
	Mean (SD)		
	Treatment (N=26)	Control (N=29)	Mean difference (95% CI)
Satisfaction with available social supports by caregiver:			
Baseline	29.43 (7.51)	32.93 (6.15)	
6-month follow-up	31.86 (4.97)	29.27 (10.01)	2.59 (-3.28 to 8.4)
Days in general education:			
Baseline	NOT MEASURED		
6-month follow-up	85.64 (78.91)	49.64 (77.25)	36 (-21.4 to 93.4)
Monthly days in out-of-home placement:			
Baseline	NOT MEASURED		
6-month follow-up	(n=15) 3.75 (4.77)	(n=16) 11.83 (11.46)	-8.08 (-14.6 to -1.55)
Mean days of psychiatric hospitalisation:			
	(n=15)=0.53 days per month	(n=16)=3.88 days per month	(No SD provided)
Days in general education:			
Baseline	NOT MEASURED		
6-month follow-up	85.64 (78.91)	49.64 (77.25)	36 (-21.4 to 93.4)

Henggeler S, Rowland M, Randall J, Ward D, Pickrel S, Cunningham P, Miller S, Edwards J et al (1999) Home-based multisystemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis: clinical outcomes. JAACAP 38: 1331-1339

Intervention: Multisystemic therapy at home vs Inpatient Hospital Care.
Study population: Psychosis/ Suicide

N=113 (57 MST, 56 Control)

Research Design: Randomised, controlled trial

Age ranges: Mean 13 years

Source: Patients were recruited from the Medical University of South Carolina.

Supplementary Reports
Henggeler S, Rowland S, Pickrel S, Miller S, Cunningham P, Santos A, Schoenwald S, Randall J & Edwards J (1997) Investigating family-based alternatives to institution-based mental health services for youth: lessons learned from the pilot study of a randomised, controlled trial. Journal of Clinical Child Psychology 26.3: 226-233.

TIME FRAME OF STUDY

Baseline=24 hrs of consent for trial.
Control Youth left hospital=1 to 2 weeks after baseline.
MST Treatment Youth discharge=mean 123 days/ 4 months after T1.

After initial drop out, 100% data collection was obtained from T1 to T3. One MST youth failed to complete a full course of therapy.

Psychometric properties

Global Severity Index of Brief Symptoms: Higher scores = greater emotional distress.

Child Behaviour Checklist: Higher scores=greater externalising/ internalising behaviour. Higher scores on social competence scale indicate better social functioning.

Personal Experiences Inventory (Drug abuse): Higher scores=greater drug involvement.

FACES: Higher scores=more cohesion/ adaptability within family.

Family Friends Scale: Higher scores=lower social support.

Youth & Caregiver satisfaction: Higher scores=greater satisfaction.

Family Functioning Self Esteem Scale: Higher scores in conventional involvement and antisocial friends subscales=better functioning.
MST=57/57, Control=53/56 had measures collected at baseline, 1 to 2 weeks later and then at 4 months.

Henggeler S, Rowland M, Randall J, Ward D, Pickrel S, Cunningham P, Miller S, Edwards J et al (1999) Home-based multisystemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis: clinical outcomes. JAACAP 38: 1331-9			
	Mean (SD)		
	Treatment (n=57)	Control (n=56)	Mean difference (95% CI)
Youth functioning: Global Severity Index of Brief Symptoms			
Baseline	1.01 (0.7)	1.22 (0.8)	
C left hospital*	0.71 (0.6)	1.03 (0.9)	-0.32 (-0.61 to -0.033)
T compl treatment+	0.74 (0.9)	0.84 (0.7)	-0.10 (-0.406 to 0.206)
Child Behaviour Checklist (externalising-caregiver):			
Baseline	73.3 (10.3)	70.6 (12.3)	
C left hospital*	67.4 (12.1)	62.4 (12.2)	5.00 (0.405 to 9.59)
T compl treatment+	63.7 (12.4)	64.3 (14.2)	-0.60 (-5.63 to 4.43)
Child Behaviour Checklist (internalising-caregiver):			
Baseline	68 (10.9)	69.5 (10.9)	
C left hospital*	62.1 (12.6))	63.1 (10.5)	-1.00 (-5.40 to 3.40)
T compl treatment+	60.6 (12.8)	60.7 (12.6)	-0.10 (-4.91 to 4.71)
Child Behaviour Checklist (externalising-teacher):			
Baseline	71.1 (10.7)	67.8 (15.1)	
C left hospital*	NOT MEASURED		
T compl treatment+	64.8 (11.8)	68 (13)	-3.20 (-7.96 to 1.56)
Child Behaviour Checklist (internalising-teacher):			
Baseline	64.6 (12.2)	62.2 (13.9)	
C left hospital*	NOT MEASURED		
T compl treatment+	60.1 (12.8)	58.8 (11.3)	1.30 (-3.27 to 5.87)
Personal Experiences Inventory (Drug abuse):			
Alcohol in past 3 months			
Baseline	2.48 (7.3)	0.77 (2.5)	
C left hospital*	NOT MEASURED		
T compl treatment+	1.27 (3.2)	1.20 (3.5)	0.07 (-1.20 to 1.34)
Marijuana in past 3 months			
Baseline	4.63 (14.3)	3.61 (14.3)	
C left hospital*	NOT MEASURED		
T compl treatment+	3.86 (14.4)	2.39 (10.5)	1.47 (-3.32 to 6.26)
Arrest			
Baseline	0.46 (0.5)	0.30 (0.5)	
C left hospital*	NOT MEASURED		
T compl treatment+	0.33 (0.5)	0.27 (0.4)	0.06 (-0.112 to 0.232)
Family Friends & Self Scale - Esteem			
Baseline	2.57 (0.9)	2.21 (1.0)	
C left hospital*	NOT MEASURED		
T compl treatment+	2.55 (1.1)	2.73 (0.9)	-0.18 (-0.56 to0 .20)

Global Severity Index of Brief Symptoms (Caregiver)			
Baseline	0.52 (0.5)	0.71 (0.8)	
C left hospital*	0.46 (0.5)	0.60 (0.7)	-0.14 (-0.37 to 0.09)
T compl treatment+	0.46 (0.5)	0.57 (0.7)	0-.11 (-0.339 to0 .119)
(FACES - youth) Family Cohesion:			
Baseline	29.6 (9.7)	29.7 (9.5)	
C left hospital*	26.5 (10.4)	30.6 (8.9)	-4.10 (-7.76 to -0.486)
T compl treatment+	29.7 (9.3)	31.6 (9.3)	-1.90 (-5.42 to 1.62)

Henggeler S, Rowland M, Randall J, Ward D, Pickrel S, Cunningham P, Miller S, Edwards J et al (1999) Home-based multisystemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis: clinical outcomes. JAACAP 38: 1331-9

	Mean (SD)		
	Treatment (n=57)	Control (n=56)	Mean difference (95% CI)
(FACES - youth) Adaptability			
Baseline	23.1 (6.7)	22.1 (6.7)	
C left hospital*	21.5 (7.4)	24.9 (7.5)	-3.40 (-6.22 to -0.583)
T compl treatment+	21.8 (8.1)	23.8 (7.4)	-2.00 (-4.94 to 0.94)
(FACES – caregiver) Family Cohesion			
Baseline	32.2 (8.4)	36.1 (5.3)	
C left hospital*	32 (7.1)	36.3 (6.4)	-4.30 (-6.86 to -1.74)
T compl treatment+	34.4 (6.6)	34.7 (6.4)	-3.00 (-2.76 to 2.16)
(FACES - caregiver) Adaptability			
Baseline	23.9 (5.7)	25 (5.2)	
C left hospital*	23.2 (5.1)	22.4 (5.7)	0.80 (-1.24 to 2.84)
T compl treatment+	23 (5.3)	22.4 (4.7)	0.60 (-1.30 to 2.50)
Child Behaviour Checklist-Social (caregiver)			
Baseline	30.2 (6.1)	30.9 (6.3)	
C left hospital*	NOT MEASURED		
T compl treatment+	33.5 (6.8)	31.8 (6.9)	1.70 (-0.85 to 4.29)
Child Behaviour Checklist-Social (youth)			
Baseline	34.9 (6.1)	36.6 (8.5)	
C left hospital*	NOT MEASURED		
T compl treatment+	36.3 (7.9)	38.7 (8.6)	-2.40 (-5.52 to 0.72)
Family Friends Scale - Conventional involvement			
Baseline	1.97 (0.8)	1.95 (0.8)	
C left hospital*	NOT MEASURED		
T compl treatment+	1.89 (0.7)	2.09 (0.8)	-0.20 (-0.484 to 0.0836)
Family Friends Scale - Antisocial friends			
Baseline	0.99 (0.8)	1.07 (0.9)	
C left hospital*	NOT MEASURED		
T compl treatment+	1.09 (1.0)	1.05 (0.9)	0.04 (-0.32 to 0.40)
Days out of School			

Baseline, C left hospital*	NOT MEASURED		
T compl treatment+	14 (36.8)	37 (59.8)	-23 (-41.6 to -4.38)
Youth consumer satisfaction			
Baseline	NOT MEASURED		
C left hospital*	15.7 (4.4)	13.3 (4.2)	2.40 (0.766 to 4.00)
T compl treatment+	15.5 (4.5)	12 (4.6)	3.50 (1.78 to 5.22)
Caregiver consumer satisfaction			
Baseline	NOT MEASURED		
C left hospital*	17.6 (3.2)	16.5 (3.4)	1.10 (-0.131 to 2.33)
T compl treatment+	17.9 (3.4)	16.4 (3.9)	1.50 (0.12 to 2.88)

Hospitalised at least once		
Baseline to 4 month follow-up	25/57 (43.86%)	53/53(100%) hospitalised at baseline
After release from hospital, 11/53 C were re-hospitalised (20.75%) at least once between discharge & 4m f-up. Significance level not reported in this report (see Schoenwald).		

* at 1 to 2 weeks; + at 4 months

Schoenwald S, Ward D, Henggeler S & Rowland M (2000) Multisystemic therapy versus hospitalization for crisis stabilisation of youth: placement outcomes 4 months post-referral. Mental Health Services Research 2.1: 3-12

**** This is a supplementary report on the Henggeler trial presented above ****

	Treatment (n=57)	Control (n=56)	Mean difference (95% CI)
Any hospitalisation of youth			
	N (%)		
Between baseline and control group discharge*	14/57 (24.56%)	56/56 (100%)	-75.4% (-86.6% to -64.3%) Significance p<.001
From control discharge until trt group 4m f-up+	16/57 (28%)	11/56 (20%)	8.43% (-7.20% to 24.1%)
From baseline until 4 month follow up	25/57 (44%)	56/56 (100%)	-56.1% (-69.0% to -43.3%) Significance p<.001
Mean days hospitalised per group			
	Mean (SD)		
Between baseline and control group discharge*	0.54 (1.81)	5.77 (3.50)	-5.23 (-6.27 to -4.19) Significance p=0.001
From control discharge until trt group 4m f-up+	1.84 (4.43)	3.05 (11.06)	-1.21 (-4.34 to 1.92)
From baseline until 4 month follow up	2.39 (4.55)	8.82 (11.55)	-6.43 (95% -11.2 to -1.66) Significance: p=.001
Mean days per hospitalised youth (n=70*, n=27+, n=81)			
	Mean (SD)		
Between baseline and	.21 (1.42)	5.77	-3.56 (-5.47 to -1.65)

control group discharge*		(3.50)	Significance p=0.001
From control discharge until trt group 4m f-up+	6.56 (6.38)	15.55 (21.42)	-8.99 (-20.6 to 2.64)
From baseline until 4 month follow up	5.54 (5.58)	8.82 (11.55)	-3.28 (-8.12 to 1.56)
Mean length of stay per hospital episode (n=70*, n=27+, n=81)			
	Mean (SD)		
Between baseline and control group discharge*	2.14 (1.46)	5.49 (2.63)	-3.35 (-4.81 to -1.89) Significance p=0.001
From control discharge until trt group 4m f-up+	4.62 (6.12)	9.44 (10.08)	-4.82 (-11.2 to 1.59)
From baseline until 4 month follow up	3.78 (5.04)	6.06 (4.05)	-2.28 (-4.37 to -.19) Significance p=0.05

* at 1 to 2 weeks
+ until treatment group 4 month follow-up

Sheidow A, Bradford W, Henggeler S, Rowland M, Halliday-Boykins C, Schoenwald S & Ward D (2004) Treatment costs for youths receiving multisystemic therapy or hospitalisation after a psychiatric crisis. Psychiatric Services 55.5: 548-554.
**** This is a supplementary report on the Henggeler trial presented above ****

TIME FRAME FOR STUDY
Baseline=24 hrs of consent for trial.
MST Treatment Youth discharge=mean 123 days/ 4 months after T1.
Follow-up=12 month post-intervention

Psychometric Properties

No psychometric measures used.

N=115 Medicaid recipients

Mean treatment costs to Medicaid:
From baseline to 4 month follow-up (T group discharge):
T (n=61)= $8236 (SD $6860)
C (n=54)= $11725 (SD $5065)
Mean Difference -$3489 (-$5741 to -$1237)
Significance p=0.004

From T group discharge at 4 months until 12 month follow-up:
T (n=53)= $11709 (SD $13396)
C (n=49)= $13451 (SD $16351)
Mean Difference -$1742 (-$7596 to $4112)

* This analysis does not include the $10276 of MST expenses not billed to Medicaid as they came from a research grant. Top five outliers were removed from each dataset to calculate means.

Henggeler S, Rowland M, Halliday C, Sheidow A, Ward D, Randall J, Cunningham P & Edwards J (2003) One year follow-up of multi-systemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis. JAACAP 42.5: 543-551.
**** This is a supplementary report on the Henggeler trial presented above ****

TIME FRAME OF STUDY
Baseline=24 hrs of consent for trial.
Control Youth left hospital=1 to 2 weeks after baseline.
MST Treatment Youth discharge=mean 123 days/ 4 months after T1.
Six month follow-up
12 month follow-up

Psychometric Properties
No psychometric measures used.

Total n=113
This is a descriptive study reporting data trends only.
No means or incidence data presented.

Evans M, Boothroyd R, Armstrong M, Greenbaum P, Brown E & Kuppinger A (2003) An experimental study of the effectiveness of intensive in-home crisis services for children and their families: program outcomes. Journal of Emotional and Behavioural Disorders 11.2: 92-102.

Intervention: Homebuilders vs Homebuilders+ vs Case Management.
Study population: Emotional/ Behavioural Disorders – 35.8% disruptive disorders, 19.8% adjustment disorders, 14.6% mood disorders, 11.8% psychotic disorders, 10.4% anxiety disorders, 7.6% other diagnosis.
N=296 (*After attrition, n=238) (49 patients not accounted for)*
Age ranges: 12.3 years (SD 3.6)
Source: USA. Families accessed Homebuilders programmes by referral from local psychiatric or general hospitals providing psychiatric emergency services.

Supplementary publications

Evans et al (2001) Outcomes associated with clinical profiles of children in psychiatric crisis enrolled in intensive, in-home interventions. Mental Health Services Research 3.1: 35-44.
Evans M et al (1997) Child outcomes of a field experiment on intensive in-home interventions for children with psychiatric crisis. Crisis Services & Residential Care 9th Annual Conference Proceedings, Research & Training Centre for Children's Mental Health: Florida University.
Evans M et al (1997) Preliminary family outcomes of a field experiment on intensive in-home interventions for children in psychiatric crisis. Crisis Services & Residential Care 9th Annual Conference Proceedings, Research & Training Centre for Children's Mental Health: Florida University.
Evans M, Boothroyd R & Armstrong M (1997) Development and implementation of an experimental study of the effectiveness of intensive in-home crisis services for children and their families. Journal of Emotional & Behavioural Disorders 5.1: 93-105.

TIME FRAME OF STUDY

Baseline
Discharge at 4/6 weeks
6 months follow-up
Discharge attrition varied from test to test ranging from 15% on the Inventory of Socially Supported Behaviours to 26% on the Piers Harris Self Concept test. 6 month follow-up attrition ranged from 28% on the Inventory of Socially Supported Behaviours to 43% on the Piers Harris Self Concept test. Exact attrition per test is not reported. At follow-up, attrition rates were approx. 33%, ranging from 28% on the ISSB to 43% on Piers Self Concept.

Psychometric Properties

Piers Self Concept: 80 question test where higher scores=better self esteem.
FACES: 30 item scale where higher scores=more cohesion and adaptation.
Parental self-efficacy: 25 item self report measure with higher scores=better self efficacy.
Socially Supported Behaviours: 40 item self-report scale where higher scores=better social support networks.
Child Behaviour Checklist: 118 item scale with higher scores=poorer cohesion and adaptability. Higher scores on the social competence scale indicate better social functioning.
Child/ Adolescent Functional Assessment Scale: Clinician rated youth role performance, behaviour towards others, moods/ emotions, substance abuse. Total score derived from 5 subscales with higher score indicating greater impairment.

Evans M, Boothroyd R, Armstrong M, Greenbaum P, Brown E & Kuppinger A (2003) An experimental study of the effectiveness of intensive in-home crisis services for children and their families: program outcomes. Journal of Emotional and Behavioural Disorders 11.2: 92-102.

**** This is a supplementary report on the Henggeler trial presented above ****

	N (%) or Mean (SD)		
	HBCI (n=90)	HBCI+ (n=85)	CCM (n=63)
Hospitalisation during treatment			
Placement at discharge: In community	75/90 (83%)	73/85 (86%)	49/63 (78.4%)
Hospitalisation during intervention: community	9/90 (10%)	9/85 (10.59%)	3/63 (5.76%)
Piers Self Concept:			
Baseline	49.98 (11.40)	49.36 (12.47)	46.61 (12.43)
Discharge	52.69 (11.00)	51.71 (9.26)	51.55 (10.55)
Discharge mean difference vs CCM (95% CI)	1.14 (-2.37 to 4.65)	0.16 (-3.07 to 3.39)	
Follow-up	53.07 (9.25)	52.38 (8.76)	53.14 (9.32)
Follow-up mean difference vs CCM (95% CI)	-0.07 (-3.08 to 2.94)	-0.76 (-3.72 to 2.20)	
Family Adaptability & Cohesion Scales (FACES) Adaptability			
Baseline	49.30 (8.07)	47.04 (9.28)	47.59 (6.65)
Discharge	51.53 (7.38)	51.86 (7.48)	50.35 (6.12)
Discharge mean difference vs CCM (95% CI)	1.18 (-1.06 to 3.42)	1.51 (-0.77 to 3.79)	
Follow-up	50.83 (5.93)	51.35 (6.81)	49.56 (7.07)
Follow-up mean difference vs CCM (95% CI)	1.27 (-0.81 to 3.35)	1.79 (-0.48 to 4.06)	
Family Adaptability & Cohesion Scales (FACES) Cohesion			
Baseline	53.18 (11.15)	52.36 (13.68)	53.66 (11.31)
Discharge	55.76 (9.56)	56.41 (10.39)	51.88 (10.44)
Discharge mean difference vs CCM (95% CI)	3.88 (0.657 to 7.10; p<0.02)	4.53 (1.11 to 7.95; p<0.01)	
Follow-up	53.97 (7.94)	53.33 (8.68)	53.00 (7.96)
Follow-up mean difference vs CCM (95% CI)	0.97 (-1.61 to 3.55)	0.33 (-2.42 to 3.08)	
Parental self-efficacy			
Baseline	77.17 (10.49)	76.58 (11.96)	75.56 (11.46)
Discharge	79.95 (11.27)	78.64 (12.07)	76.79 (13.20)
Discharge mean difference vs CCM (95% CI)	3.16 (-0.77 to 7.09)	1.85 (-2.28 to 5.98)	
Follow-up	79.56 (10.10)	81.85 (11.44)	79.44 (14.22)
Follow-up mean	0.12 (-3.76 to	2.41 (-1.76 to	

difference vs CCM (95% CI)	4.00)	6.58)	
Socially Supported Behaviours			
Baseline	88.76 (30.10)	77.89 (29.19)	84.72 (26.75)
Discharge	91.60 (32.12)	86.00 (30.70)	80.95 (30.82)
Discharge mean difference vs CCM (95% CI)	10.7 (0 .40 to 20.9)	5.05 (-5.05 to 15.2)	
Follow-up	76.26 (23.89)	75.83 (27.53)	73.65 (27.88)
Follow-up mean difference vs CCM (95% CI)	2.61 (-5.70 to 10.9)	2.18 (-6.91 to 11.3)	

Evans M, Boothroyd R, Armstrong M, Greenbaum P, Brown E & Kuppinger A (2003) An experimental study of the effectiveness of intensive in-home crisis services for children and their families: program outcomes. Journal of Emotional and Behavioural Disorders 11.2: 92-102.

**** This is a supplementary report on the Henggeler trial presented above ****

	Mean (SD)		
	HBCI (n=90)	HBCI+ (n=85)	CCM (n=63)
Child Behaviour Checklist (Total Problems)			
Baseline	69.83 (8.59)	68.37 (10.66)	72.98 (8.91)
Discharge	72.02 (6.68)	70.67 (9.63)	71.56 (9.50)
Discharge mean difference vs CCM (95% CI)	0.46 (-2.12 to 3.04)	-0.89 (-4.04 to 2.26)	
Follow-up	68.16 (10.04)	66.92 (9.08)	70.06 (10.50)
Follow-up mean difference vs CCM (95% CI)	-1.90 (-5.22 to 1.42)	-3.14 (-6.33 to 0.05)	
Child Behaviour Checklist (Internalising)			
Baseline	66.82 (8.05)	65.84 (10.80)	69.16 (11.03)
Discharge	68.30 (7.41)	67.85 (10.07)	66.49 (10.51)
Discharge mean difference vs CCM (95% CI)	1.81 (-1.05 to 4.67)	1.36 (-2.01 to 4.73	
Follow-up	63.92 (9.72)	63.50 (9.10)	65.65 (10.80)
Follow-up mean difference vs CCM (95% CI)	-1.73 (-5.03 to 1.57)	-2.15 (-5.39 to 1.09)	
Child Behaviour Checklist (Externalising)			
Baseline	68.58 (10.14)	66.73 (12.13)	71.22 (9.87)
Discharge	70.17 (8.02)	67.93 (10.12)	71.02 (9.00)
Discharge mean difference vs CCM (95% CI)	-0.85 (-3.59 to 1.89)	-3.09 (-6.26 to 0.08)	
Follow-up	67.38 (9.89)	65.50 (9.86)	68.42 (11.44)

Follow-up mean difference vs CCM (95% CI)	-1.04 (-4.47 to 2.39)	-2.92 (-6.39 to 0.55)	
Child Behaviour Checklist (Social Competency)			
Baseline	32.44 (5.99)	31.63 (6.99)	33.29 (7.90)
Discharge	33.00 (7.58)	32.97 (6.64)	33.74 (7.52)
Discharge mean difference vs CCM (95% CI)	-0.74 (-3.19 to 1.71)	-0.77 (-3.08 to 1.54)	
Follow-up	33.47 (6.67)	33.17 (4.93)	32.96 (6.03)
Follow-up mean difference vs CCM (95% CI)	0.51 (-1.57 to 2.59)	0.21 (-1.57 to 1.99)	
Child / Adolescent Functional Assessment Scale			
Baseline	66.56 (40.17)	72.17 (32.98)	65.15 (25.43)
	(data not reported in study on discharge or follow-up measures)		

Mattejat F, Hirt B, Wilken J, Schmidt M & Remschmidt H (2001) Efficacy of inpatient and home treatment in psychiatrically disturbed children and adolescents. European Child & Adolescent Psychiatry 10: 71-79.

Intervention: Home treatment vs Inpatient Care
Study population: Emotional & Behavioural Disorders – 11% neurosis, 17% enuresis/ encopresis, 17% anorexia or other eating disorders, 19% conduct disorders, 27% emotional disorders, 9% ADHD.
N=68
Research Design: Randomised controlled trial.
Age ranges: mean 15.6 months (SD 3 years 3 months) at follow up. Mean at start of treatment was 11 years 9 months.
Source: Two child/adolescent psychiatry hospitals in Mannheim & Marburg, Germany.

TIME FRAME OF STUDY
Baseline
Discharge (time frame uncertain)
Follow-up=2 to 5 years later (mean 3 years 8 months)
Psychometric Properties
Number of Marked Symptoms: Range of scores from 0 (no symptoms) to 22 (maximum symptoms).
Adaptation to school or work: Range of scores from 1=excellent to 7=extremely impaired.
N=27 (Mannheim) N=41 (Marburg)
I=Inpatient, H=Home Treatment

Mattejat F, Hirt B, Wilken J, Schmidt M & Remschmidt H (2001) Efficacy of inpatient and home treatment in psychiatrically disturbed children and adolescents. European Child & Adolescent Psychiatry 10: 71-79.

	Mean (SD)	

	Inpatient	Home	Mean Difference (95% CI)
Marburg sample Number of Marked Symptoms			
Baseline	2.2 (1.5) n=18	1.9 (1.1) n=23	
Discharge	0.8 (1.1) n=18	0.2 (0.5) n=23	0.60 (-0.0796 to 1.12)
Follow-up	0.8 (1.0) n=16	0.3 (0.6) n=23	0.50 (-0.0191 to 1.02)
There were no significant differences between groups at any time (Marburg inpatient/ home treatment).			
Mannheim sample Number of Marked Symptoms			
Baseline	3.8 (1.7) n=15	3.3 (1.2) n=12	
Discharge	0.9 (1.6) n=15	0.3 (0.5) n=12	0.60 (-0.391 to 1.59)
Follow-up	2.0 (1.4) n=15	1.5 (1.7) n=12	0.50 (-0.728 to 1.73)
There were no significant differences between groups at any time (Mannheim inpatient/ home treatment).			
Marburg sample Adaptation to school or work			
Baseline	4.1 (1.6) n=18	3.7 (1.2) n=23	
Discharge	3.6 (1.4) n=18	3.1 (0.8) n=23	0.50 (-0.20 to 1.2)
Follow-up	4.0 (1.2) n=17	3.2 (0.6) n=23	0.80 (0 .216 to 1.38)
Mannheim sample Adaptation to school or work			
Baseline	4.4 (1.2) n=15	3.9 (1.3) n=12	
Discharge	3.3 (1.0) n=15	2.6 (1.0) n=12	0.70 (-0.098 to 1.5)
Follow-up	3.5 (1.6) n=14	3.2 (1.4) n=12	0.30 (-0.93 to 1.53)
There were no significant differences between groups at any time			

Remschmidt H et al (1988) Therapy evaluation in child and adolescent psychiatry: a comparison of inpatient, day hospital and home treatment. Z Kinder Jugend Psychiatrie 16.3: 124-134.

**** This is a supplementary report on the Mattejat trial presented above ****

TIME FRAME OF STUDY

Baseline
Discharge

N=92

Data not represented in useable format as aggregated across both settings. See Mattejat et al (2001).

Winsberg B, Bialer I, Bupietz S, Botti E & Balka E (1980) Home vs hospital care of children with behaviour disorders. Archives of General psychiatry 37: 413-418.

Intervention: Home care vs Inpatient care

Study population: Emotional and
Behavioural Disorders (externalising) – hyperkinetic disorder, unsocialised aggressive reaction of childhood, childhood neurosis with behaviour disorder, unsocialised aggressive reaction with psychoneurosis.

N=49

Research Design: Randomised, controlled trial.

Age ranges: 5 year 3 months to 13 years 2 months

Source: USA. An inpatient unit (Kings County Hospital ward) where all the children were inpatients while under assessment.

TIME FRAME OF STUDY

Baseline
6 months follow-up
Long term follow-up=1.5 to 3 years

Standardised testing during study cannot be used as different raters assessed treatment vs. control group.

Psychometric properties

No reliable psychometric tests were used in this study. N=49 (Hospital (H Group)=24,Community (C Group)=25)

Winsberg B, Bialer I, Bupietz S, Botti E & Balka E (1980) Home vs hospital care of children with behaviour disorders. Archives of General psychiatry 37: 413-418.

	N (%)		
	H (n=24)	C (n=25)	Difference (95% CI)
Long-term follow-up (1.5 to 3 years after treatment completed): Placement outcomes			
In an institution (mostly residential school)	11/24 (45.83%)	7/25 (28%)	17.8% (-8.8% to 44.4%)
Lived at home	12/24 (50%)	18/25 (72%)	H: 1 died from gunshot wound C: nil deaths
Parent Final Impressions test of satisfaction			
Satisfied	17/24 (70.93%)	20/25 (80%)	9.17% (-14.8% to 33.2%)

Silberstein et al (1968) Avoiding institutionalisation of psychotic children. Archives of General Psychiatry 19: 17-21.

Intervention: Parental counselling + child medication (4 combinations from counselling+drugs to placebo drugs only)
Study population: Emotional and Behavioural Disorders – acting out at school/ home, poor peer relations, hyperactivity, learning disturbance, peculiar mental activity, unusual gestures, truancy, somatic symptoms and special symptoms such as soiling, suicide ideation and homicidal threats.
N=48
Research Design: Randomised, controlled trial
Age ranges: mean 10 years 4 months (range 4 years 2 months to 17 years)
Source: USA. Staten Island Mental Health Centre referred children meeting inclusion criteria for study.

TIME FRAME
Baseline
Discharge 26 weeks later (all groups)

Psychometric Properties

No psychometric measures used in this study.
At baseline n=48, Group 1 n=12, Group 2 n=12, Group 3 n=14 & Group 4 n=10.

Active drug+parent counselling (group 1) (n=12)	Placebo drug+ counselling (group 2) (n=12)	Active drug+no counselling (group 3) (n=14)	Placebo drug+no counselling (control) (n=10)
N (%)			

Not hospitalised during study period			
11/12 (91.66%)	11/12 (91.66%)	14/14 (100%)	10/10 (100%)
Overall 46/48 children in study were not hospitalised (95.83%) Pooled treatment groups 1 to 3 (36/38) vs control (10/10) (no treatment) Difference -5.26% (95% CI -12.4% to 1.8%)			
Child did not provoke requests for hospitalisation			
11/12 (91.66%)	11/12 (91.66%)	13/14 (92.86%)	10/10 (100%)
Overall 45/48 children in the study did not have hospital requests made by parents (93.75%). Pooled treatment groups 1 to 3 (35/38) vs control(10/10) (no treatment) Mean Difference -7.9% (95% CI -16.5% to 0.68%)			
Did not get into police difficulties			
9/12 (75%)	10/12 (83.3%)	14/14 (100%)	10/10 (100%)
Overall 43/48 children (89.58%) in the study did not get into trouble with police. Pooled treatment groups 1 to 3 (33/38) vs control (no treatment) Mean Difference -13.2% (95% CI -23.9% to -2.4%)			
Child remained in their regular classroom			
8/12 (66.7%)	9/12 (75%)	11/14 (78.6%)	8/10 (80%)
Overall 36/48 children in the study remained in classroom. *Pooled treatment groups 1 to 3 (28/38) vs control (no treatment)* *Difference -6.3% (95% CI -34.8% to 22.2%)*			
Community adjustment			
16/48 children (33.33%) were unsuccessful/ partially successful in their community adjustment according to the authors. 46/48 children (95.83%) were retained in community over 26 weeks. Of 16 children, there were 22 specific incidents of pressure for child to be removed from community over 26 weeks. No statistically significant findings on any measures.			

Byford S, Barrett B, Roberts C, Clark A, Edwards V, Harrington R, Smethurst N & Gowers S (2007) Economic evaluation of a randomised controlled treatment trial for adolescent anorexia nervosa – the TOuCAN trial. British Journal of Psychiatry 191, 436-440

Intervention: Specialist outpatient care vs Inpatient care vs Generic outpatient care.

Study population: Anorexia Nervosa

N=167

Research Design: Randomised, controlled trial

Age ranges: 12 to 18 years

Source: Recruited from 38 CAMHS teams across NE England.

Supplementary reports
Gowers S & Smyth B (2004) The impact of a motivational assessment interview on initial response to treatment in adolescent anorexia nervosa. European Eating Disorders Review 12: 87-93.

Gowers S (2006) Evidence based research in CBT with adolescent eating disorders. Child and Adolescent Mental Health 11.1: 9-12.

TIME FRAME OF STUDY
Baseline
1 year follow-up
2 year follow-up

At 2 year follow-up, data were available on 81% of the original sample (135/167) for cost-effectiveness analysis.

Psychometric properties

Child & Adolescent Service Use Schedule: Interview at one and two year follow-up. Data on hospital contacts was collected from clinical records to avoid patients revealing their treatment group to research assessors.

All unit costs were for the financial year 2003/04. Costs in the second year were discounted at a rate of 3.5%. All NHS hospital costs, including trial interventions, were calculated using NHS reference costs. Unit costs of private sector inpatient stays were collected by direct personal communication with each facility. Unit costs of community services (including health, social, voluntary and private sector services) came from national publications. The costs of schooling came from OFSTED reports and published documents such as the Independent Schools Council. Medications were costed using the British National Formulary.

Number included in the analysis for resource use during the 2 year follow-up period:
Specialist Outpatient (SO) n=45
Inpatient Care (IC) n=47
Generic Outpatient (GO) n=43

Byford S, Barrett B, Roberts C, Clark A, Edwards V, Harrington R, Smethurst N & Gowers S (2007) Economic evaluation of a randomised controlled treatment trial for adolescent anorexia nervosa – the TOuCAN trial. British Journal of Psychiatry 191, 436-440

Mean (SD)		
SO (n=45)	IC (n=47)	GO (n=43)
Inpatient nights		
55 (114)	73 (124)	89 (159)
Mean differences: SO vs IC =-18 nights (95% CI -67.4 to 31.4) SO vs GO=-34 nights (95% CI -92.4 to 24.4)		
Outpatient appointments		
26 (22)	23 (20)	31 (24)
Mean differences: SO vs IC=3.00 (95% CI -5.70 to 11.7) SO vs GO=-5.00 (95% CI -14.8 to 4.81)		
Day patient contacts		
1 (7)	4 (12)	1 (5)
Mean differences: SO vs IC=-3.00 (95% CI -7.09 to 1.09)		

SO vs GO=0.00 (95% CI -2.59 to 2.59)		
Accident & Emergency contacts		
1 (SD=2)	0 (SD=1)	0 (SD=1)
Mean differences: SO vs IC=1.00 (95% CI 0.328 to 1.67) SO vs GO=1.00 (9%% CI 0.325 to 1.67) Not significant		
Overall costs of care per patient during the 2 year follow-up period		
Inpatient nights/ Outpatient appointments/ Day patient contacts/ A&E contacts combined costs		
£24724 (£46231)	£32015 (£51541	£37746 (£62046)
Mean differences IC vs SO=-£7291 (95% CI -£27601 to -£13019) SO vs GO=-£13022 (95% CI -£36139.63 to £10096)		
Total two year cost including clinical, community & education		
£26738 (£46809)	£34531 (£52439)	£40794 (£63652)
Mean differences SO vs IC -£7793 (95% CI -£28414 to £12828) SO vs GO -£14056 (95% CI -£37658.71 to £9547)		

Table 5 Non randomised comparison studies

Wilmshurt L (2002) Treatment programs for youth with emotional and behavioural disorders: an outcome study of two alternative approaches. Mental Health Services Research 4.2: 85-96.

Intervention: Family Preservation Services vs 5 day residential care programme

Study population: Emotional and Behavioural Disorders – no clinician diagnostic data given.

N=82

Research design: Controlled study

Age ranges: mean 11.12 (SD 1.76) for FP, mean 10.35 (SD 2.28) for 5DR.

Source: USA. Referrals from the Children's Services Network (a single point access mechanism for at risk children/ youth requiring intensive services) were passed onto the Programme Director. Patients were alternatively allocated to the FP service or the 5DR service (subject to their availability).

TIME FRAME OF STUDY

Baseline
Discharge (3 months later)
1 year follow-up

Psychometric Properties

Social Skills Rating System: Ratings of cooperation, assertion, self-control and responsibility. Teachers also rate academic competence. Mean score of 100, SD 15. Lower scores=poorer social skills.

Standardised Client Information System: 60 item measure including subscales from the Child Behaviour Checklist for parents and youth. Teacher version is a 46 item measure. Higher scores=greater problems.

N=82 (Family Preservation (FP) Programme=48, 5 Day Residential (5DR) Programme=34). However, after attrition the study sample=65 (n=38 FP, n=27 5DR).

Wilmshurt L (2002) Treatment programs for youth with emotional and behavioural disorders: an outcome study of two alternative approaches. Mental Health Services Research 4.2: 85-96.

	Mean (SD)		
	FP (n=48)	5DR (n=34)	Mean difference (95% CI)
Standardised Client Information System			
Total externalising behaviours (reported by parents)			
Baseline	82.16 (19.90)	81.26 (9.80)	
Discharge	73.92 (13.20)	74.59 (9.60)	-0.67 (-6.15 to 4.81)
1 year follow-up	70.89 (12.40)	73.22 (12.20)	–2.33 (-8.53 to 3.87)
Total internalising behaviours (reported by parents)			

Baseline	69.76 (13.30)	65.74 (11.80)	
Discharge	66.24 (13.40)	67.15 (13.30)	-0.91 (-7.63 to 5.81)
1 year follow-up	62.58 (11.60)	66.41 (12.80)	-3.83 (-9.92 to 2.26)
Total internalising behaviours (reported by teachers, n=11 FP Programme, n=9 5DR)			
Baseline	68.09 (12.87)	59.42 (13.13)	
Discharge	NOT MEASURED		
1 year follow-up	62.18 (6.3)	66 (8.2)	-3.82 (-10.6 to 2.99)
Social Skills Rating System			
Social Competence (reported by parents)			
Baseline	74.23 (10.59)	74.67 (12.02)	
Discharge	81.74 (14.98)	81.73 (13.14)	0.009 (-7.16 to 7.18)
	Significant TIME differences between baseline & discharge (increased social competence) (p=.001)		
1 year follow-up	82.87 (14.98)	81.53 (11.91)	1.34 (-5.60 to 8.28)
	Significant TIME differences between baseline & follow-up (increased social competence) (p=.001)		
Behaviour Problems (reported by parents)			
Baseline	128.92(12.62)	130.60(10.25)	
Discharge	121.72(13.57)	121.53(12.31)	0.19 (-6.38 to 6.76)
	Significant TIME differences between baseline & discharge (decline in symptoms) (p=.001).		
1 year follow-up	119.15(13.78)	118.23(12.19)	0.92 (-5.69 to 7.53)
	Mean Difference Significant TIME differences between baseline & follow-up (decline in symptoms) (p=.001).		

Schwartz I, Auclaire P & Harris L (1991) Family preservation services as an alternative to the out-of-home placement of adolescents: the Hennepin County experience. Wells K & Biegal D (eds) Family Preservation Services (SAGE: NEWBURY PARK)

Intervention: Family Preservation Services vs Out-of-home placement

Study Population: Emotional and behavioural Disorders at risk of out-of-home placement. No clinical diagnosis provided.

N=58 treatment, 58 control

Research Method: Controlled study

Age ranges: 45% <14 years

Source: USA. An experimental prospective allocation method determined treatment and control group. The child welfare services division supervisor

reviewed all cases of children referred to their agency as being 'at risk' of out-of-home placement. After further review by the Division manager, candidates for residential placement were reviewed by a multi-disciplinary team (screening committee). Of these eligible candidates, they were allocated to the trial arms depending on the availability of a free place of home treatment. When a free place was available, a case aide consulted the log of eligible cases and allocated the most recently listed case. If a place was not available, cases were referred for standard placement services with the usual division procedures.

TIME FRAME

Baseline
Follow-up was between 12/16 months later.

Psychometric properties
No psychometric measures used in this study.

Home treatment (H) n=55, Comparison group (C) n=58

Schwartz I, Auclaire P & Harris L (1991) Family preservation services as an alternative to the out-of-home placement of adolescents: the Hennepin County experience. Wells K & Biegal D (eds) Family Preservation Services (SAGE: NEWBURY PARK)			
	N (%)		
	H (n=55)	C (n=58)	Difference in proportions (95% CI)
Not receiving out-of-home placement by 12/16 months			
	24/55 (43.64%)	5/58 (8.62%)	35% (20% to 50%)
31/55 H (56.36%) accounted for the 71 placement events during study period. 55/58 C (92.83%) accounted for the 134 placement events during the study period. C experienced 7260 more days in placement during study period than H (12037 vs 4777 days).			
Placement outcomes for 'at risk' youth by 12/18 month follow-up			
Shelter	43/55 (78.18%)	48/58 (82.76%)	4.6% (-19.2% to 10%)
Chemical Depen-dency Treatment	2/55 (3.64%)	8/58 (13.79%)	-10.2% (95% -20.3% to 0.0000359%
Group Foster Home	2/55 (3.64%)	2/58 (3.44%)	0.19% (-6.63% to 7%)
Treatment Foster Home	0/55 (0%)	3/58 (5.17%)	-5% (-10.9% to 0.5%)
Group Home	10/55 (18.18%)	21/58 (36.21%)	-18% (-34% to -2%)
Residential Treatment	15/55 (27.27%)	36/58 (62.07%)	-34.8% (-52% to -18%)
Correctional placement	0/55 (0%)	1/58 (1.72%)	-1.7 (-5.1% to 1.6%)
Psychiatric hospital	0/55 (0%)	2/58 (3.45%)	-3.45% (-8.14% to 12.5%)
Mental retardat-ion facility	0/55 (0%)	1/58 (1.72%)	-1.7% (-5% to 1.6%)
Foster home	3/55 (5.45%)	11/58 (18.97%)	-13.5% (-25% to -1.77%)
Family placement	1/55 (1.82%)	1/58 (1.72%)	0.94% (-5% to 5%)

Sherman J, Barker P, Lorimer P, Swinson R & Factor D (1988) Treatment of autistic children: relative effectiveness of residential, out-patient and home-based interventions. Child psychiatry and human development 19.2: 109-125.

Intervention: Home vs Outpatient vs Residential Care

Study Population: Autism

N=15

Research Design: Quasi-randomised study

Age ranges: 5 years 2 months (2 years 7 months to 7 years)

Source: Children were referred from the Treatment, Research & Education for Autism and Developmental Disorders Programme. They were randomly assigned to the three arms of the trial: home treatment, outpatient clinic or residential care. However, there was some matching of children for baseline functioning so each group (n=5) had 3 higher functioning and 2 lower functioning.

TIME FRAME
Baseline
Discharge
5 year follow up

Means data excluded.

Psychometric properties

No psychometric tests used in this study.

N=15 (5 in each group of home treatment (H), outpatient (O) and residential care (R))
Data not useable as presented according to structure of setting based on rater observation.
At 5 year follow-up:
0/5 H group (0%) in residential settings
1/5 O group (20%) in residential settings
2/5 R group (40%) in residential settings
Observed Difference in Proportion of H against O+R=-30% (95% CI -58.4% to -1.6%)

Schmidt M, Lay B, Gopel C, Naab S & Blanz B (2006) Home treatment for children and adolescents with psychiatric disorders. European Child & Adolescent Psychiatry 15: 265-276.

Intervention: Home treatment vs Inpatient Care

Study Population: Emotional and behavioural disorders – hyperkinetic disorder (48.6% - home, 45.7% inpatient), conduct disorders (15.7% home, 17.1% inpatient) and mixed disorder of conduct+emotions (7.1% home, 5.7% inpatient). 28.6% of home and 31.4% of inpatient children had OCD, emotional disorder of childhood, aspergers syndrome, phobic anxiety, nonorganic encopresis, somatisation disorder or personality disorder. Cormorbid developmental disorder affected 14.3% of home group and 20% of inpatients.

N=105 (70 Home treatment, 35 Inpatient)

Research Design: Controlled study

Age ranges: mean home treatment 10.9 years (SD 3.0), mean inpatient 11.3 years (SD 3.1)

Source: All children were consecutively admitted to the child/ adolescent department of the Central Institute of Mental Health (Mannheim) and then considered as candidates for home treatment. Parents were offered the home treatment as optional to inpatient care.

Schmidt et al, 2006

TIME FRAME

Baseline
Discharge (mean 3 months)
12 months follow-up

Mannheim total symptoms scores were significantly higher at baseline for inpatients than home patients.
ndex of Family Relations (Youth SR) and Coddington Life Events Scale (Youth SR) were only taken at baseline.

Psychometric Properties

Mannheim Parent Interview: 40 symptoms each rated as 0=symptom absent to 2=severe symptoms.

SGKJ Global Assessment Score: 1=continual supervision required, 10=excellent functioning.

Parent ratings of level of functioning: 5 dimensional rating scale with each item rated from 7=high level of functioning to 1=most impaired level of functioning.

Global ratings of behavioural changes mean change score: behavioural change rated on 5 point scale from 1=marked behaviour deterioration to 5=marked improvement.

Blind rating of treatment effectiveness: ratings of change across behavioural dimensions and global change are made on a 7 point scale from -2=marked deterioration to +4=complete improvement.

Initial home treatment sample=76 (4 left for inpatient care and 2 families refused to continue treatment). Data are based on the n=70 home treatment children and n=35 inpatient children reaching discharge. By 12 month follow-up, 59/70 home treatment group and 30/35 inpatient group were measured.

Schmidt M, et al(2006) Home treatment for children and adolescents with psychiatric disorders. European Child & Adolescent Psychiatry 15: 265-276.			
	Mean (SD)		
	H (n=70)	I (n=35)	Mean difference (95% CI)
Mannheim Parent Interview of Symptoms			
Baseline	12 (5.2)	14.8 (5.4)	
Discharge	8 (5.2)	6.2 (3.7)	1.80 (-0.15 to 3.75)
12 mo follow-up	4.6 (3.6)	7.5 (3.8)	-2.90 (-4.53 to -1.27)
SGKJ Global Assessment Score			
Baseline	4.5 (0.5)	4.5 (0.5)	
Discharge	5.8 (1.0)	6.3 (1.0)	-0.50 (-0.911 to 0.089)
	Significant treatment differences favouring inpatients between baseline and discharge (p=.005)		
12 mo follow-up	6.3 (1.2)	6.0 (1.2)	0.30 (-0.235 to 0.835)
Parent ratings of level of functioning			
Family functioning			
Baseline	3.8 (0.9)	3.4 (1.2)	
Discharge	4.2 (0.8)	4.2 (1.0)	0.00 (-0.36 to 0.36)
12 mo follow-up	4.4 (0.9)	4.0 (1.4)	0.40 (-0.087 to 0.89)
School Performance			
Baseline	4.7 (1.1)	4.3 (1.1)	
Discharge	4.8 (1.2)	4.9 (1.0)	-0.10 (-0.57 to 0.37)
12 mo follow-up	5 (1.0)	4.8 (1.2)	0.20 (-0.277 to 0.677)
Peers			
Baseline	4.0 (1.1)	3.9 (1.4)	
Discharge	4.3 (1.0)	4.5 (1.0)	-0.10 (-0.525 to 0.325)
12 mo follow-up	4.6 (0.9)	4.4 (1.1)	0.20 (-0.233 to 0.633)
Interests			
Baseline	3.8 (1.2)	3.5 (1.2)	
Discharge	4.2 (1.1)	3.9 (1.2)	0.30 (-0.166 to 0.766)
12 mo follow-up	4.4 (1.1)	4.1 (1.1)	0.30 (-0.19 to 0.79)
Autonomy			
Baseline	4.5 (1.1)	4.6 (1.0)	
Discharge	4.8 (0.9)	5.0 (0.8)	-0.20 (-0.556 to 0.156)
12 mo follow-up	5.1 (0.7)	5.1 (1.0)	0.00 (-0.362 to 0.362)
Global ratings of behavioural changes (1-5) mean change score			
Child			
Discharge	4.1 (0.9)	4.6 (0.6)	-0.50 (-0.83 to -0.17)
Significant treatment differences favouring inpatient treatment. (p=.02)			
12 mo follow-up	NOT MEASURED		
Parents			
Discharge	4.2 (0.7)	4.5 (0.6)	-0.30 (-0.57 to -0.025)
Significant treatment differences favouring inpatient treatment (p=.03)			
12 mo follow-up	3.7 (1.1)	3.1 (1.5)	0.60 (0.044 to 1.16)
Therapist			
Discharge	4.3 (0.7)	4.5 (0.6)	-0.20 (-0.47 to 0.07)
12 mo follow-up	3.6 (1.1)	3.2 (1.3)	0.40 (-0.12 to 0.92)

Schmidt M, Lay B, Gopel C, Naab S & Blanz B (2006) Home treatment for children and adolescents with psychiatric disorders. European Child & Adolescent Psychiatry 15: 265-276.			
	Mean (SD)		
	H (n=70)	I (n=35)	Mean difference (95% CI)

Blind evaluation of effectiveness of treatment (mean change)			
Symptoms			
Discharge	1.8 (1.0)	2.2 (0.9)	1.40 (0.94 to 1.86)
Level of functioning			
Discharge	1.5 (1.0)	2.0 (0.9)	-0.50 (-0.897 to -0.103)
Psychosocial environment			
Discharge	1.3 (1.0)	1.9 (0.9)	-0.60 (-0.997 to -0.203)
Global			
Discharge	1.6 (1.0)	2.1 (0.9)	-0.50 (-0.897 to -0.103)
Hospitalisation rates, n(%)			
	4/76 (5.3%)	35/35 (100%)	-94.7% (-89.7% to -99.8%)

Greenfield B, Larson C, Hechtman L, Rousseau C & Platt R (2002) A rapid response outpatient model for reducing hospitalisation rates among suicidal adolescents. Psychiatric Services 53.12: 1574-1579.

Intervention: Rapid-response outpatient clinic vs Standard Outpatient Care Study Population: Suicidal Adolescents

Study population: Suicidal youth

N=344, (treatment n=158, control n=128)

Research Method: Controlled study

Age ranges: 12 to 17 years (treatment mean=14 years (SD 1.59), control mean=14 years (SD 1.46)

Source: Youth were referred to the rapid-response team as a result of attending ER with suicidal behaviour. While in ER, an on-call paediatrician hospitalised some of the youth immediately. Remaining suicidal youth were assigned to one of two out-patient services depending on the decision of the psychiatrist who saw them in ER. This is the rapid-response model (treatment group) or control group treatment. Control group patients continued treatment started in ER, referred to outpatients or referred to community services. A decision to hospitalise a control group patient was made by the psychiatrist at the time the patient came to ER.

TIME FRAME
Baseline
2 months later
6 months later

Psychometric Properties

Children's Global Assessment Scale: 10 category measure of functioning along a 100 point scale. Higher scores=better functioning.
Spectrum of Suicidal Behaviour Scale: 5 point scale ranging from 1=suicidal ideation to 5=serious suicide attempts. Higher scores=more suicidal behaviour. Negative scores reflect a change in the mean score from higher suicidality to lower suicidality.

N=286 (Rapid response group (RR)=158, control group I=128).

Greenfield B, Larson C, Hechtman L, Rousseau C & Platt R (2002) A rapid response outpatient model for reducing hospitalisation rates among suicidal adolescents. Psychiatric Services 53.12: 1574-1579.

	N (%)		
	RR (n=158)	C/I (n=128)	Difference (95% CI)
Hospitalisation rates over 6 months			
hospitalised immediately			
	18/158 (11.39%)	53/128 (41.04%)	-30% (-40% to -20%)
Treated immediately by a psychiatrist (i.e. not referred to rapid-			

response model)			
	9/158 (5.70%)		
Received rapid-response outpatient services			
	131/158 (82.91%)		
Hospitalised			
2 mnth f-up	26/158 (16.46%)	53/158 (33.54%)	-17.1% (-26.4% to -7.73%)
6 mnth f-up	28/158 (17.07%)	55/128 (42.97%)	-25.2% (-36% to -15%)
Length of stay in hospital, mean (SD) days			
Baseline	6.6 (5.6)	3.9 (3.8)	2.7 (1.56 to 3.84)
2 mnth f-up	7.1 (6.1)	4.1 (3.9)	3.0 (1.78 to 4.22)
6 mnth f-up	7.8 (9.9)	5.1 (6.8)	2.7 (0.68 to 4.73)
Return to ER within 6 months			
	15/158 (9.49%)	12/128 (9.38%)	0.119% (-6.69% to 6.93%)
Repeat suicide attempts			
	23/158 (14.56%)	14/128 (10.93%)	3.62% (-4.09%5 to 11.3%)
Clinical Change Scores, 2 months follow-up, mean (SD)			
Children's Global Assessment Scale			
	13.12 (SD 14.6)	13.48 (SD 15.5)	-0.36 (-3.87 to 3.15)
Spectrum of Suicidal Behaviour Scale			
	-1.34 (SD 1.26)	-1.63 (SD 1.27)	0.29 (-.006 to 0.59)
Clinical Change Scores, 6 months follow-up, mean (SD)			
Children's Global Assessment Scale			
	14.86 (SD 15.29)	13.26 (SD 17.52)	1.60 (-2.22 to 5.42)
Spectrum of Suicidal Behaviour Scale			
	-1.40 (SD 1.26)	-1.54 (SD 1.21)	0.14 (95% CI -.15 to 0.43)

Cornwall A and Blood L (1998) Inpatient versus day treatment for substance abusing adolescents. Journal of Nervous and Mental Disease 186: 580-582.

Intervention: Inpatient care vs day treatment

Study Population: Substance abuse.

N=79 Inpatient, 66 Day patients

Research Design: Controlled study

Age ranges=mean 16.5 years

Source: Referrals were made to the inpatient service or day treatment programme after assessment at an outpatient drug dependency clinic or detoxification facility. Referrals were made to each setting based on the initial assessment.

TIME FRAME

baseline
discharge (10 to 12 weeks)
follow-up (6 months)

6 month follow-up measures are only taken for some of the tests.

At baseline, the inpatient group had more severe symptoms on all the measures taken, except youth self-report. No baseline adjustment applied to analysis.

Psychometric tests

Adolescent Alcohol Involvement Scale: Higher scores=more alcohol use.
Drug Abuse Screening Test: Higher scores=more drug use.
Coopersmith Self Esteem Inventory: Higher scores =better self esteem.
Index of Peer Relations: Higher scores=better peer relations.
Index of Family Relations: Higher scores=better family relations.
Youth Self Report: Lower reports=less externalising/ internalising behaviour.

Inpatient (I)=79, Day treatment (D)=66

106 patients consented to telephone interview at 6 month follow-up. 85 patients completed standardised measures. Authors do not report n for respective subgroups (day/ inpatient) so mean differences not provided.

Follow-up interview at 6 months (n=106):

Being at school/ work, problems with the law or with people they live with ($p>.10$). No statistically significant between group differences.

More inpatients enrolled in self-help group/ counselling than day patients ($p<.05$).

Substance abuse (Significant TIME differences for alcohol use $p<.001$, cannabis use $p<.001$, other drugs use $p<.001$). Inpatients had significantly more substance use at baseline compared to day patients, but not at 6

month follow-up (p<.05).

Cornwall A and Blood L (1998) Inpatient versus day treatment for substance abusing adolescents. Journal of Nervous and Mental Disease 186: 580-582.		
	Mean (SD)	
	D (n=66)	I (n=79)
Standardised Measures (n=85)		
Adolescent Alcohol Involvement Scale		
Baseline	53.3 (17.2)	57.4 (10.3)
Discharge	38.8 (17.2)	37.7 (17.0)
Drug Abuse Screening Test		
Baseline	7.8 (1.6)	8.1 (1.9)
Discharge	4.6 (3.1)	4.5 (3.5)
Coopersmith Self Esteem Inventory		
Baseline	46.3 (15.8)	37.55 (15.6)
Discharge	58.91 (21.6)	53.73 (20.3)
6m f-up	66.97 (21.0)	58.98 (25.2)
Index of Peer Relations		
Baseline	25.84 (15.1)	36.29 (21.5)
Discharge	27.5 (16.1)	28.13 (20.7)
6m f-up	23.19 (19.4)	22.58 (17.3)
Index of Family Relations		
Baseline	43.13 (20.6)	50.55 (22.4)
Discharge	35.25 (20.1)	39.2 (20.3)
6m f-up	31.94 (21.1)	39.64 (25.7)
Youth Self Report (externalising behaviour)		
Baseline	70.29 (5.8)	68.02 (8.7)
Discharge	64.54 (10.0)	60.64 (9.5)
6m f-up	60.31 (10.0)	59.49 (9.5)
Youth Self Report (internalising behaviour)		
Baseline	65.49 (8.6)	66.49 (10.5)
Discharge	60.89 (10.4)	60.76 (9.3)
6m f-up	57.06 (9.8)	58.76 (9.6)

Table 6 Pre/ post test studies with a comparison group

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.

Intervention: Family Preservation Services.

Study Population: Emotional-behavioural disorders at risk of out-of-home placement.

N=453 families of which 446 families were at risk of out of home placement. 446 families (intensive family preservation services) vs 38 families (case-overflow wait-list comparison group).

Research Design: Pre/post test design with wait-list comparison group.

Age ranges: Mean 12.5 years (SD 4 years).

Source: In Utah more than half of the cases were referred by Child Protection Services and about 25% of cases came from juvenile courts/ the juvenile screening committee. In Washington, all referrals came from the Division of Child and Family Services and Department of Social and Health Services.

Time Frame for Study

Baseline
Discharge (after >37 hours treatment)
1 year follow-up

Psychometric Properties

FACES: low scores=less cohesion/ adaptability in family functioning. Cohesion scores <34 = severe family disengagement

Adaptability scores 20-29 indicate normal level of functioning.

CWLA Family Risk Scales: Lower scores=less dysfunction.

Global rating of home satisfaction: 5 point scale from 1='a lot worse now' to 5 'a lot better now'.

Goal attainment: 5 point scale from 1=not attained to 5=fully attained.

Primary Caretaker Rating of Family Problems (Family Risk Scales): 5 point scale from 1=not a problem to 5=extreme problem.

Social Support Inventory: High scores=poorer social support/ more aversive social interactions. 25 item scale ranging 1 (once a day or more) to 8 each item (not at all).

Consumer Satisfaction Survey: 5 point scale ranging 1=not a problem to 5=extreme problem.

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.	
	Mean (SD)
	Outcomes for treatment group only (n varies across measures):
FACES (Family Adaptability and Cohesion Scale) primary caregiver	
Cohesion	
Baseline (n=442)	32.60 (7.05)
Discharge (n=369)	34.39 (7.49)
Adaptability	
Baseline (n=442)	25.58 (5.59)
Discharge (n=369)	25.73 (5.62)
CWLA Family Risk Scales (family therapist rated) N=581 per child not per family (mean scores)	
Habitability	
Baseline	1.24
Discharge	1.14
Suitability	
Baseline	1.35
Discharge	1.25
Financial problems	
Baseline	1.94
Discharge	1.86
Adult relationships	
Baseline	2.00
Discharge	1.86
Social support	
Baseline	1.91
Discharge	1.79
Caretakers mental health	
Baseline	1.74
Discharge	1.58
Caretakers physical health	
Baseline	1.54
Discharge	1.55
Caretakers child supervision	
Baseline	1.62
Discharge	1.32
Caretakers parenting skills	
Baseline	2.46
Discharge	2.02
Caretakers use of physical punishment	
Baseline	1.78
Discharge	1.50
Caretakers skill in verbal discipline	
Baseline	2.14
Discharge	1.79
Caretakers motivation to solve family problems	
Baseline	1.98
Discharge	1.71

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates

of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.	
	Mean
	Outcomes for treatment group only (n varies across measures):
Caretakers interest in preventing placement	
Baseline	1.67
Discharge	1.45
Caretakers knowledge of child care	
Baseline	2.31
Discharge	1.96
Caretakers cooperation with treatment	
Baseline	1.47
Discharge	1.40
Caretakers use of drugs/ alcohol	
Baseline	1.32
Discharge	1.19
Child's mental health	
Baseline	1.89
Discharge	1.63
Child's physical health	
Baseline	1.34
Discharge	1.28
Child's physical needs	
Baseline	1.31
Discharge	1.24
Child's school adjustment	
Baseline	2.45
Discharge	1.98
Child's emotional care	
Baseline	2.16
Discharge	1.92
Child's oppositional/ defiant behaviour	
Baseline	1.95
Discharge	1.52
Child's oppositional behaviour in home	
Baseline	2.21
Discharge	1.72
Child's cooperation in treatment	
Baseline	1.73
Discharge	1.70
Child's risk of sexual abuse	
Baseline	1.33
Discharge	1.23
Social Support Inventory (primary caregivers)	
Spouse/ Cohabitant	
Empathetic Friendship (N=259)	
Baseline	3.49
Discharge	3.47 (Not significant)
Aversive relation (N=259)	
Baseline	5.08
Discharge	5.71

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.	
	Mean / Mean (SD)
	Outcomes for treatment group only (n varies across measures):
Coaching relation (N=251)	
Baseline	4.72
Discharge	4.81
Extended family/ non-kin	
Empathetic Friendship (N=509)	
Baseline	4.42
Discharge	4.18
Aversive relation (N=501)	
Baseline	6.58
Discharge	6.79
Coaching relation (N=500)	
Baseline	5.11
Discharge	5.11
Parental ratings of family problem severity (N=350)	
Lack of appliances/ furniture at home	
Baseline	1.4 (1.0)
Discharge	1.2 (1.2)
Unsafe housing conditions	
Baseline	1.3 (0.9)
Discharge	1.2 (0.6)
Being evicted from home	
Baseline	1.2 (0.9)
Discharge	1.2 (0.7)
Inadequate finances for rent/food/ healthcare/clothing	
Baseline	2.3 (1.3)
Discharge	2.1 (1.4)
Inability to provide food or clothing	
Baseline	1.8 (1.3)
Discharge	1.8 (1.2)
Inability to prevent children playing where they shouldn't	
Baseline	1.7 (1.2)
Discharge	1.4 (0.9)
Losing your temper with children	
Baseline	3.1 (1.4)
Discharge	2.0 (1.0)
Inappropriately punishing children	
Baseline	2.4 (1.4)
Discharge	1.6 (0.9)
Having unrealistic expectations of children	
Baseline	3.5 (1.5)
Discharge	2.5 (1.2)
Children fighting	
Baseline	3.5 (1.5)
Discharge	2.5 (1.2)

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates

of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.	
	Mean (SD)
	Outcomes for treatment group only (n varies across measures):
Children lying	
Baseline	3.5 (1.5)
Discharge	2.6 (1.3)
Children stealing	
Baseline	2.8 (1.7)
Discharge	2.0 (1.3)
Children not attending school	
Baseline	3.0 (1.8)
Discharge	2.2 (1.6)
Children drinking/ using drugs	
Baseline	2.0 (1.5)
Discharge	1.6 (1.2) Significant p<.001
Children running away	
Baseline	2.6 (1.7)
Discharge	1.6 (SD 1.2)
Children being sexually active	
Baseline	1.7 (11.3)
Discharge	1.5 (1.1)
Children being anxious, afraid, tense	
Baseline	3.0 (1.5)
Discharge	2.3 (1.2)
Children being sad/ depressed/ suicidal	
Baseline	2.8 (1.6)
Discharge	2.0 (1.2)
Children being moody	
Baseline	3.4 (1.5)
Discharge	2.6 (1.3)
Children wetting/ soiling bed	
Baseline	1.6 (1.3)
Discharge	1.4 (1.1)
Caretaker in poor health	
Baseline	2.1 (1.4)
Discharge	1.8 (1.2)
Caretaker drinking too much/ using drugs	
Baseline	1.2 (0.7)
Discharge	1.1 (0.5)
Caretaker feeling sad or depressed	
Baseline	3.2 (1.5)
Discharge	2.3 (1.2)
Caretaker feeling overwhelmed	
Baseline	3.4 (1.5)
Discharge	2.2 (1.2)
Caretaker fighting	
Baseline	2.4 (1.6)
Discharge	1.7 (1.0)

Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates

of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York.	
	Mean / Mean (SD)
	Outcomes for treatment group only (n varies across measures):
Caretaker tense or nervous	
Baseline	3.3 (1.4)
Discharge	2.3 (1.2)
Caretaker hating self or feeling worthless	
Baseline	2.6 (1.6)
Discharge	1.8 (1.1)
Caretaker feeling lonely	
Baseline	2.8 (1.6)
Discharge	2.2 (1.3)
Goal attainment (family therapist rated mean) (n=453)	
1 yr f-up	3.30 (0.8)
Global family ratings	
Discharge	4.3 (0.9)
Consumer Satisfaction Survey mean - caregiver (n=364)	
Discharge	Utah 1.5 (1.3)
Discharge	Washington 1.2 (0.6)
Helpfulness of Service	
	4.4 (1.0)

Placement outcomes for treatment / comparison group:

Placement by discharge:
T: 136/ 453 (30.5%) families had 1 non-restrictive placement or runaway episode of 2 weeks or more. Placement prevention rate at discharge was 91.3%.

Placement by 1 year follow-up:
T=113/342 children (33.04%) had a placement or run away for 2 weeks+
C=23/27 children (85.18%) had a placement or run away for 2 weeks+.
Observed Difference: -52.1% (95% CI -66.4% to -37.8%)

T=10/342 children (2.92%) used inpatient psychiatric care.
C=7/27 children (25.92%) used inpatient psychiatric care.
Observed Difference: -23% (95% CI -39.6% to -6.38%)

Blumberg S (2002) Crisis intervention program: an alternative to inpatient psychiatric treatment for children. Mental Health Services Research 4.1: 1-6

Intervention: Intensive Case Management (Hospital Diversion)

Study Population: Emotional-Behavioural Disorders. Presenting problems involve significant risk of harm to self or others through fire-setting, severe aggression, dangerous runaway or suicide ideation.

N=465 referrals to crisis intervention programme from 1996-1998.

Research Design: Pre/ post test with historical comparison group .

Age ranges: Up to 12 years of age eligible.

Source: Terry's Clinic, Delaware.

Time Frame for Study

Baseline (enrolment to crisis management programme)
Discharge (treatment duration mean 26.5 days)
Follow-up (hospital rates monitored between 1996 and 1998 and compared to 1993-1995 historical comparison).

Psychometric Properties

No psychometric scales used in this study.

Hospital utilisation rates per 10,000 eligible children:
Pre-crisis intervention period (1993-1995):
Mean 3.59 beds per day (SD 1.63)
Post-crisis intervention period (1996-1998):
Mean 2.78 beds per day (SD 0.73)

Cost-effectiveness of service (based on mean 155 admissions per year at cost of $3225 per child):
Decrease of approximately $20000 per year in treatment costs relative to projection costs without the programme. 28% the cost of 20 days inpatient care at $11400 per child.

Of 465 crisis intervention outpatients:
Intervention diverted 2.5 beds per day x 365 days per year (i.e. 912 beds per year).
0/465 self-harmed or put others at risk of harm during the study period.

Greenfield B, Hechtman L & Tremblay C (1995) Short-term efficacy of interventions by a youth crisis team. Canadian Journal of Psychiatry 40: 320-324.

Intervention: Rapid-response outpatient clinic.

N=568 (treatment group) vs 412 (historical control group).

Study Population: Emotional-Behavioural Disorders – mostly suicidal.

Research Design: Pre/ post test with historical comparison group.

Age ranges: 13 to 17 years

Source: Montreal Children's Hospital.

Time Frame for Study
Baseline (year that crisis management started, compared to historical comparison group in previous year)
Follow-up (1 year of service delivery)
Follow-up (4 years after admission for patient deaths rates only)

Psychometric Properties

No psychometric scales used in this study

T=568 crisis management patients, C=412 historical comparison group receiving standard outpatient care.

Hospitalisations over one year:
T=118/568 (21%)
C=152/412 (37%)
Observed Difference -16.1% (95% CI -21.8% to -10.4%)

Return to emergency room over one year at least once:
T=16/568 (2.8%)
C=19/412 (4.6%)
Observed Difference -1.79% (95% CI -4.23 to 0.64%)

Deaths by 4 year follow-up:
T=0/568 deaths

Evans M, Huz S, McNulty T & Banks S (1996) Child, family and system outcomes of intensive care management in New York State. Psychiatric Quarterly 67.4: 273-286.

Intervention: Intensive Case Management (Hospital Diversion)
(Phase 2 study) N=199 for evaluation of child/ family outcomes.
(Phase 3 study) N=917 for monitoring hospital outcomes from central case management database records of all patients treated over four years. A matched comparison group was used

Study Population: Emotional-behavioural disorders, with 45% of sample having diagnosis of a disruptive behaviour disorder such as attention deficit disorder, conduct disorder or oppositional defiant disorder.

N=392.

Research Design: Pre/ post test design with historical comparison group.

Age ranges: Mean age 12 years, ranging 4 to 18 years.

Source: Children and Youth Intensive Case Management (CYICM), New York State.

Supplementary report

Evans et al (1994) Initial hospitalisation and community tenure outcomes of intensive case management for children and youth with serious emotional disturbance. Journal of child and family studies 3.2: 225-234.

Time Frame for Study

Baseline (enrolment to case management)
Discharge at a mean 421 days (SD 320 days)
Phase 2 follow-up at 3 years or discharge
Phase 3 follow-up at 4 years (2 years before intensive crisis management implemented compared to 2 years after intensive crisis management implemented for hospital admission rates).

Psychosocial symptoms data outcomes are reported at discharge for 162/199 children. 100% of hospitalisation outcomes for the 917 children tracked on the computer record system are reported. Hospitalisation rates do not include admissions to private inpatient care facilities.

Psychometric properties
Unmet need survey: Checklist for medical needs, recreational needs, mental health needs, social support needs and educational needs. Higher scores=greater unmet need.

Total psychosocial symptoms: Checklist of symptoms 1=present, 0=not present.

Child Behaviour Checklist: Higher scores =greater internalising/ externalising symptoms.

Child and Adolescent Functional Assessment Scale: Higher scores=poorer functioning in role performance, thinking, behaviour towards self/others and moods/ emotions.

Family/ Child outcomes for treatment group (T) N=199 (Phase 2)

Unmet need survey at discharge:
Significant decreases in unmet needs in the following areas: medical needs ($p<.05$), recreational needs ($p<.01$) and educational needs ($p<.05$). No significant decrease in unmet needs in the following areas: mental health or social support needs remained high at approximately 78% of enrolled children. No means were provided.

Total Psychosocial symptoms (n=162):
At baseline (mean):
T=5.4 (no SD reported)
At discharge or 3 year follow-up (mean):
T=3.1 (no SD reported)
Of psychosocial symptoms, aggressive behaviour, anxiety, suicidal thoughts/ behaviours, psychotic behaviour, fire setting, cruelty to animals all decreased significantly p<.01. No sub-scale means are presented.

Child Behaviour Checklist (caregiver):
Total Problem Behaviour
At baseline (mean):
T=69.7 (no SD reported)
At discharge or 3 year follow-up (whichever came first) (mean):
T=66.7 (no SD reported)

Internalising Behaviour (caregiver):
At baseline (mean):
Mean 65.4 (no SD reported)
At discharge or 3 year follow-up (mean):
Mean 62 (no SD reported)

Externalising Behaviour (caregiver):
At baseline (mean):
T=69.3 (no SD reported)
At discharge or 3 year follow-up (mean):
T=67.4 (no SD reported)

Child and Adolescent Functional Assessment Scale:
Only significant improvements by discharge/ 3 year follow-up for subscale 'Behaviour towards self/ others' (p<.05); no significant differences reported for role performance, thinking or moods/ emotions. Means data not reported.

Hospitalisation rates for 2 years prior vs 2 years after case management enrolment
2 years before enrolment: (N=917 – Phase 3):
Approximately 10 days per month
2 years after enrolment:
Approximately 2 days per month
Hospital days:
Comparison of those enrolled with (E) (n=917) vs those not enrolled (NE) 'matched' comparison group (n=392) over two years:
E=<1 day per quarter
NE=3 days per quarter

Table 8 Service and caseload data by service type - England

1. INTENSIVE DAY SERVICES

Total number of day services	13
Number of day services with service data	7
Number of day services with caseload data	6

SERVICE DATA

	N
Exclusion criteria (5/7)	
High risk to others	2
Drug and/or alcohol abuse	1
Homelessness	1
Moderate/severe learning disability	3
Risk of absconding	1
Forensic history	1
Geographic profile (5/7)	
Urban	3
Large town	3
Small town	2
Rural	3
Remote rural	1
Setting (5/7)	
Psychiatric hospital / unit	3
General hospital	1
Within the home	2
Community based clinic	1
Treatment approach (5/7)	
Individual therapy	5
Group therapy	5
Family therapy	5
Pharmacotherapy	5
24 hour cover (7/7)	2
Emergency out of hours care (7/7)	2
Assessment within 24 hours or NWD (7/7)	4
Other providers (6/7)	
Other NHS	1
LA	3
Other	1

	Range	*Mean*	*SD*
Age limit (6/6)			
Lower	0-13	9	5.3
Upper		16.5	2.7

	Range	Mean	SD
Capacity (5/6)		13.8	9.9
Population of area covered [thousands] (2/7)	175-1250	712	760

CASELOAD DATA

	Range	Mean	SD	Total	%
Gender (5/6)					
Males	1-60	27.6	25.8	138	*51.9*
Females	2-64	25.6	25	128	*48.1*
Age groups (5/6)					
0-4	0-56	12.6	24.4	63	*23.7*
5-9	0-39	13.2	18.6	66	*24.8*
10-14	0-10	3.2	4.1	16	*6.0*
15	1-12	5.6	4.7	28	*10.5*
16-18	2-54	18.2	20.7	91	*34.2*
19-25	0-2	0.4	0.9	2	*0.8*
Ethnicity (5/6)					
White British	3-87	42.6	42	213	*80.1*
White Irish	0-2	0.4	0.9	2	*0.8*
White Other	0-2	0.6	0.9	3	*1.1*
Mixed White Caribbean	0-2	0.6	0.9	3	*1.1*
Mixed White African	0-4	0.8	1.8	4	*1.5*
Mixed White Asian	-	-	-	1	*0.4*
Asian Indian	0-3	0.6	1.3	3	*1.1*
Asian Pakistani	0-4	1.4	1.9	7	*2.6*
Asian Bangladeshi	0-5	1.2	2.2	6	*2.3*
Asian Other	-	-	-	1	*0.4*
Black African	0-2	0.4	0.9	2	*0.8*
Chinese	0-1	0.4	0.5	2	*0.8*
Not Specified	0-13	3.8	5.8	19	*7.1*
Referral source (3/6)					
Internal	3-39	19.3	18.2	58	*96.7*
Other	0-2	0.7	1.2	2	*3.3*
Duration of wait - first seen (3/6)					
< 4 weeks	3-13	8	5	24	*75.0*
4-13 weeks	0-8	2.7	4.6	8	*25.0*
Duration of wait -assessment to service (4/6)					

<4 weeks	2-48	15.8	21.6	63	*79.7*
4-13 weeks	0-12	3.5	5.7	14	*17.7*
14-26 weeks	0-2	0.5	1	2	*2.5*

	Range	*Mean*	*SD*	*Total*	*%*
Duration of treatment (5/6)					
<4 weeks	2-25	13.4	9.4	67	*33.0*
4-13 weeks	1-27	11.2	10.1	56	*27.6*
14-26 weeks	0-29	7.8	12	39	*19.2*
27-52 weeks	0-8	3.4	3.6	17	*8.4*
53+ weeks	0-15	4.8	6.4	24	*11.8*
Reason for admission (4/6)					
Suicide	0-4	1.8	2.1	7	*5.8*
Self harm	0-8	2.3	3.9	9	*7.4*
Psychosis	1-6	2.3	2.5	9	*7.4*
Eating disorder physical	0-12	4.8	5.3	19	*15.7*
Depression / anxiety	1-21	8.3	9.2	33	*27.3*
Family breakdown	0-9	2.3	4.5	9	*7.4*
Other	0-18	8.8	7.4	35	*28.9*
Primary presentation (5/6)					
Hyperkinetic disorder	0-20	4	8.9	20	*7.5*
Emotional disorder	0-24	10.4	12	52	*19.5*
Conduct disorder	0-8	1.6	3.6	8	*3.0*
Eating disorder	0-10	3.2	4.6	16	*6.0*
Psychotic disorder	0-5	1.6	2.1	8	*3.0*
DSH	0-18	4	7.9	20	*7.5*
Habit disorder	-	-	-	1	*0.4*
Autistic spectrum disorder	0-23	4.6	10.3	23	*8.6*
Developmental disorder	0-4	1.4	1.7	7	*2.6*
Not able to define	0-33	6.6	14.8	33	*12.4*
More than one disorder	0-68	15.6	29.5	78	*29.3*

2. INTENSIVE OUTPATIENT SERVICES

Total number of outpatient services	11
Number of outpatient services with service data	8
Number of outpatient services with caseload data	6

SERVICE DATA

	N
Exclusion criteria (5/8)	
High risk to others	1
Homelessness	1
Psychosis	2
Mild learning disability	1
Moderate/severe learning disability	3
Forensic history	2
Impending court appearance	1
Geographic profile (3/8)	
Urban	3
Large town	2
Small town	2
Rural	2
Remote rural	2
Setting (7/8)	
Psychiatric hospital / unit	3
General hospital	2
Within the home	3
GP/primary health care	1
Community based clinic	5
Social Services	1
Treatment approach (6/8)	
Individual therapy	6
Group therapy	2
Family therapy	5
Pharmacotherapy	5
24 hour cover (7/8)	2
Emergency out of hours care (7/8)	2
Assessment within 24 hours or NWD (7/8)	4

Target groups (7/8)		
	16-17 year olds	2
	Mild learning disability	1
	Moderate/severe learning disability	1
	Criminal justice system	2
Other providers (7/8)		
	Other	1

	Range	*Mean*	*SD*
Age limit (7/8)			
Lower	0-13	7.9	5.5
Upper	18-19	18.3	0.5

CASELOAD DATA

	Range	*Mean*	*SD*	*Total*	*%*
Gender (6/6)					
Males	2-120	65.3	44.7	392	77.0
Females	7-30	19.5	8.2	117	23.0
Age groups (5/6)					
0-4	0-6	1.2	2.4	7	1.4
5-9	0-60	19.2	23.7	115	22.6
10-14	3-26	15.2	11	91	17.9
15	0-4	1	1.7	6	1.2
16-18	7-36	21.3	14.3	128	25.1
19-25	2-55	27	23	162	31.8
Ethnicity (5/6)					
White British	12-121	53.4	45.9	267	64.6
White Irish	0-9	3	3.7	15	3.6
White Other	0-7	2.6	2.7	13	3.1
Mixed White Caribbean	0-4	1.8	1.8	9	2.2
Mixed White African	0-2	0.4	0.9	2	0.5
Mixed White Asian	0-2	0.8	0.8	4	1.0
Mixed Other	0-3	1	1.4	5	1.2
Asian Indian	0-1	0.4	0.5	2	0.5
Asian Pakistani	-	-	-	1	0.2
Asian Bangladeshi	-	-	-	1	0.2
Asian Other	0-2	0.6	0.9	3	0.7
Black Caribbean	0-2	0.8	0.8	4	1.0
Black African	0-5	1.8	2.2	9	2.2
Black Other	0-3	0.6	1.3	3	0.7
Other	0-6	1.4	2.6	7	1.7
Not Specified	0-52	13.6	21.9	68	16.5
Referral source (2/6)					
Primary Health Care	2-63	27.5	36.1	55	48.2
Education	0-4	2	2.8	4	3.5
Social Services	-	-	-	1	0.9
Child Health	0-11	5.5	7.8	11	9.6
Self Referral	0-2	1	1.4	2	1.8
Internal	8-16	12	5.7	24	21.1
Other	8-9	8.5	0.7	17	14.9
Duration of wait - first seen (2/6)					

< 4 weeks	4-38	21	24	42	100.0

	Range	*Mean*	*SD*	*Total*	*%*
Duration of wait -assessment to service (3/6)					
<4 weeks	4-38	22.3	17.2	67	45.6
4-13 weeks	0-49	16.3	28.3	49	33.3
14-26 weeks	0-19	6.3	11	19	12.9
27+ weeks	0-12	4	6.9	12	8.2
Duration of treatment (6/6)					
<4 weeks	0-39	15	14.4	90	17.7
4-13 weeks	2-49	19	17.9	114	22.4
14-26 weeks	4-31	16.7	9.6	100	19.6
27-52 weeks	4-32	15.5	12.3	93	18.3
53+ weeks	6-36	18.7	13.8	112	22.0
Reason for admission (3/6)					
Self harm	0-16	5.3	9.2	16	12.1
Harm to others	0-67	22.3	38.7	67	50.8
Psychosis	0-4	1.3	2.3	4	3.0
Eating disorder physical	0-18	6	10.4	18	13.6
Depression / anxiety	-	-	-	1	0.8
Confusional state	0-9	3	5.2	9	6.8
Other	0-17	5.7	9.8	17	12.9
Primary presentation (6/6)					
Hyperkinetic disorder	0-14	4	6.3	24	4.7
Emotional disorder	0-41	13.8	16	83	16.3
Conduct disorder	0-47	9.5	18.5	57	11.2
Eating disorder	1-96	22.3	36.9	134	26.3
Psychotic disorder	0-12	5	4.6	30	5.9
DSH	0-26	7.3	10.3	44	8.6
Habit disorder	0-8	1.5	3.2	9	1.8
Autistic spectrum disorder	0-15	4.8	7.5	29	5.7
Developmental disorder	0-6	1.7	2.7	10	2.0
Not able to define	0-7	1.3	2.8	8	1.6
Other	0-6	1.2	2.4	7	1.4
More than one disorder	0-37	12.3	19.1	74	14.5

3. INTENSIVE HOME TREATMENT SERVICES	Service Data
Total number of home treatment services	11
Number of home treatment services with service data	5
Number of home treatment services with caseload data	2

	N
Exclusion criteria (5/5)	
Moderate/severe learning disability	1
Geographic profile (4/5)	
Urban	1
Large town	3
Small town	1
Rural	3
Remote rural	2
Setting (5/5)	
Psychiatric hospital / unit	3
General hospital	1
Specialist mental health centre	3
Within the home	5
GP/Primary Healthcare	2
Community based clinic	3
Social Services	1
Treatment approach (5/5)	
Individual therapy	5
Group therapy	1
Family therapy	2
Pharmacotherapy	3
Emergency out of hours care (5/5)	1
Assessment within 24 hours or NWD (5/5)	1
Target groups (5/5)	
16-17 year olds	1
Moderate/severe learning disability	1
Population of area covered [thousands] (1/5)	212

	Range	*Mean*	*SD*
Age limit (3/5)			
Lower	0-11	3.7	6.4
Upper	17-19	17.7	1.2
Capacity (3/5)	4-30	14.7	13.6

CASELOAD DATA

	Range	*Mean*	*SD*	*Total*	*%*
Gender (2/2)					
Males		6	1.4	12	92.3
Females	-	-	-	1	7.7
Age groups (2/2)					
5-9	0-5	2.5	3.5	5	38.5
10-14	-	-	-	1	7.7
16-18	0-2	1	1.4	2	15.4
19-25	1-4	2.5	2.1	5	38.5
Ethnicity (2/2)					
White British		5	0	10	76.9
Mixed White Caribbean	-	-	-	1	7.7
Black African	-	-	-	1	7.7
Chinese	-	-	-	1	7.7
Duration of wait -assessment to service (1/2)					
<4 weeks	-	-	-	8	100.0
Duration of treatment (2/2)					
<4 weeks	0-2	1	1.4	2	15.4
4-13 weeks	1-2	1.5	0.7	3	23.1
14-26 weeks	0-4	2	2.8	4	30.8
27-52 weeks	2-2	2	0	4	30.8
Reason for admission (1/2)					
Suicide	-	-	-	1	12.5
Psychosis	-	-	-	2	25.0
Eating disorder physical	-	-	-	4	50.0
Other	-	-	-	1	12.5
Primary presentation (2/2)					
Emotional	-	-	-	1	7.7
Eating disorder	0-4	2	2.8	4	30.8
Psychotic	0-2	1	1.4	2	15.4
Autistic spectrum disorder	0-2	1	1.4	2	15.4
Not able to define	0-2	1	1.4	2	15.4
More than one disorder	0-2	1	1.4	2	15.4

4. INTENSIVE TREATMENT FOSTER CARE SERVICES

Total number of ITFC services	1
Number of ITFC services with service data	1
Number of ITFC services with caseload data	1

SERVICE DATA

	N
Other providers	
Youth Justice Board	1
Age limit	
Lower	10
Upper	18

CASELOAD DATA

	N
Gender	
Males	3
Females	2
Age groups	
5-9	3
10-14	2
Ethnicity	
White British	5
Duration of treatment	
4-13 weeks	1
27-52 weeks	4
Primary presentation	
Autistic spectrum disorder	1
More than one disorder	5

5. OTHER INTENSIVE OUTREACH SERVICES

Total number of other intensive outreach services	8
Number of other intensive outreach services with service data	5
Number of other intensive outreach services with caseload data	4

SERVICE DATA

	N
Geographic profile (4/5)	
Urban	4
Large town	0
Small town	0
Rural	0
Remote rural	0
Setting (5/5)	
Psychiatric hospital / unit	3
General hospital	1
Specialist mental health centre	2
Within the home	4
GP/Primary Healthcare	3
Community based clinic	4
Social Services	2
Treatment approach (4/5)	
Individual therapy	4
Group therapy	1
Family therapy	4
Pharmacotherapy	4
Emergency out of hours care (5/5)	1
Assessment within 24 hours or NWD (5/5)	3
Target groups (5/5)	
16-17 year olds	3
Mild learning disability	2
Moderate/severe learning disability	1
Criminal justice system	2
Other providers (5/5)	
Other NHS	2
LA	2

Other	2
Population of area covered [thousands] (1/5)	56

	Range	*Mean*	*SD*
Age limit (4/5)			
Lower		13	2.2
Upper	17-18	17.8	0.5

	Range	*Mean*	*SD*
Capacity (1/5)	30	-	-

CASELOAD DATA

	Range	*Mean*	*SD*	*Total*	*%*
Gender (4/4)					
Males	7-86	42	38.3	168	73.7
Females	7-25	15	7.4	60	26.3
Age groups (4/4)					
5-9	0-16	6	7.7	24	10.5
10-14	1-23	11.5	11.6	46	20.2
15	0-4	1.8	2.1	7	3.1
16-18	8-36	23	11.7	92	40.4
19-25	0-36	14.8	17	59	25.9
Ethnicity (2/2)					
White British	5-67	29	26.6	116	49.4
White Irish	0-4	1.5	1.9	6	2.6
White Other	0-17	7.3	7.5	29	12.3
Mixed White Caribbean	3-4	3.3	0.5	13	5.5
Mixed White African	0-3	1	1.4	4	1.7
Mixed White Asian	0-2	0.5	1	2	0.9
Mixed Other	0-2	0.8	1	3	1.3
Asian Indian	0-2	0.5	1	2	0.9
Asian Pakistani	0-1	0.5	0.6	2	0.9
Asian Bangladeshi	0-4	1.3	1.9	5	2.1
Asian Other	0-3	1.5	1.3	6	2.6
Black Caribbean	0-13	3.5	6.4	14	6.0
Black African	0-6	2.8	2.8	11	4.7
Ethnicity Black Other	0-2	0.5	1	2	0.9
Chinese	0-1	0.5	0.6	2	0.9
Other	0-8	2.5	3.7	10	4.3
Not Specified	0-8	2	4	8	3.4
Referral Source (2/4)					

Primary Healthcare	0-4	2	2	4	9.8
Education	0-3	1.5	1.5	3	7.3
Youth Justice	-	-	-	1	2.4
Voluntary or Independent Sector	-	-	-	1	2.4
Internal referral	0-27	13.5	13.5	27	65.9
Other	0-5	2.5	2.5	5	12.2
Duration of wait -assessment to service (4/4)					
<4 weeks	0-83	27.3	38.1	109	97.3
4-13 weeks	0-3	0.8	1.5	3	2.7
Duration of treatment (4/4)					
<4 weeks	0-76	27	35.2	108	50.5
4-13 weeks	0-21	6.3	10	25	11.7
14-26 weeks	0-18	5.8	8.5	23	10.7
27-52 weeks	0-25	9	11.9	36	16.8
53+ weeks	0-18	5.5	8.5	22	10.3

	Range	*Mean*	*SD*	*Total*	*%*
Reason for admission (3/4)					
Suicide	3-21	11.3	9.1	34	15.6
Self harm	0-20	9.7	10	29	13.3
Harm to others	1-9	5	4	15	6.9
Psychosis	7-8	7.3	0.6	22	10.1
Eating disorder physical	0-10	3.3	5.8	10	4.6
Depression / anxiety	2-61	28.3	30	85	39.0
Family breakdown	0-3	1.3	1.5	4	1.8
Homelessness	0-1	0.7	0.6	2	0.9
Other	0-14	5.7	7.4	17	7.8
Primary presentation (3/4)					
Hyperkinetic	0-18	8.7	9	26	12.1
Emotional	2-61	24.7	31.8	74	34.6
Conduct	0-8	3	4.4	9	4.2
Eating disorder	0-10	3.7	5.5	11	5.1
Psychotic	8-13	10	2.6	30	14.0
DSH	3-24	14.7	10.7	44	20.6
Substance abuse	-	-	-	1	0.5
Habit	0-3	1	1.7	3	1.4
ASD	0-2	0.7	1.2	2	0.9
Developmental	0-1	0.7	0.6	2	0.9
Other	0-3	1	1.7	3	1.4
More than one disorder	0-7	3	3.6	9	4.2

6. OTHER SPECIFIC THERAPEUTIC PROGRAMME

Total number of other therapeutic programmes	4
Number of other therapeutic programmes with service data	3
Number of other therapeutic programmes with caseload data	2

SERVICE DATA

	N
Geographic profile (3/3)	
Urban	1
Large town	2
Small town	0
Rural	1
Remote rural	0
Setting (3/3)	
Specialist mental health centre	1
Within the home	1
Community based clinic	2
Treatment approach (3/3)	
Individual therapy	3
Group therapy	0
Family therapy	3
Pharmacotherapy	1
Assessment within 24 hours or NWD (3/3)	1

	Range	*Mean*	*SD*
Age limit (1/3)			
Lower	0	-	-
Upper	17	-	-
Capacity (1/3)	60	-	-
Population of area covered [thousands] (2/3)	209-228	219	13

CASELOAD DATA

		Range	*Mean*	*SD*	*Total*	*%*
Gender (2/2)						
	Males	0-4	2	2.8	4	15.4
	Females	10-12	11	1.4	22	84.6
Age groups (4/4)						
		0-4	2	2.8	4	15.4
	15	3-8	5.5	3.5	11	42.3
	16-18	2-9	5.5	4.9	11	42.3
Ethnicity (2/2)						
	White British	6-9	7.5	2.1	15	57.7
	White Other	-	-	-	1	3.8
	Mixed White Caribbean	-	-	-	1	3.8
	Not Specified	0-9	4.5	6.4	9	34.6
Referral Source (1/2)						
	Primary Healthcare	-	-	-	16	100.0
Duration of wait – first seen (2/2)						
	<4 weeks	1-3	2	1.4	4	44.4
	4-13 weeks	1-3	2	1.4	4	44.4
	14-26 weeks	-	-	-	1	11.1
Duration of treatment (1/2)						
	4-13 weeks	-	-	-	2	20.0
	14-26 weeks	-	-	-	2	20.0
	27-52 weeks	-	-	-	1	10.0
	53+ weeks	-	-	-	5	50.0
Reason for admission (1/2)						
	Self harm	-	-	-	4	25.0
	Eating disorder physical	-	-	-	7	43.8
	Depression / anxiety	-	-	-	5	31.3
Primary presentation (2/2)						
	Emotional	0-4	2	2.8	4	15.4
	Eating disorder	10-10	10	0	20	76.9
	DSH	-	-	-	1	3.8
	ASD	-	-	-	1	3.8

7. CRISIS INTERVENTION SERVICES

Total number of crisis intervention services	5
Number of crisis intervention services with service data	3
Number of crisis intervention services with caseload data	2

		N
Geographic profile (3/3)		
	Urban	2
	Large town	2
	Small town	0
	Rural	1
	Remote rural	0
Setting (3/3)		
	Psychiatric hospital / unit	1
	General hospital	1
	Specialist mental health centre	1
	Within the home	3
	GP/Primary Healthcare	1
	Community based clinic	3
	Social Services	0
Treatment approach (3/3)		
	Individual therapy	3
	Group therapy	2
	Family therapy	2
	Pharmacotherapy	2
24 hour cover (3/3)		2
Emergency out of hours care (3/3)		2
Assessment within 24 hours or NWD (3/3)		3
Target groups (3/3)		
	16-17 year olds	1
Other provider (3/3)		
	Other NHS	1
	LA	1

	Range	*Mean*	*SD*

Age limit (3/3)				
	Lower		9.3	4.7
	Upper	17-18	17.7	0.6
Capacity (3/3)		7-30	15.7	12.5
Population of area covered [thousands] (2/3)		100-228	164	91

CASELOAD DATA

		Range	*Mean*	*SD*	*Total*	*%*
Gender (2/2)						
	Males	1-6	3.5	3.5	7	16.3
	Females	2-34	18	22.6	36	83.7
Age groups (2/2)						
	10-14	0-16	8	11.3	16	37.2
	15	1-15	8	9.9	16	37.2
	16-18	2-9	5.5	4.9	11	25.6
Ethnicity (2/2)						
	White British	2-40	21	26.9	42	97.7
	Mixed White Caribbean	-	-	-	1	2.3
Referral source (2/2)						
	Primary health care	0-28	14	19.8	28	65.1
	Education	0-2	1	1.4	2	4.7
	Social services	0-1	0.5	0.7	1	2.3
	Voluntary or independent sector	0-1	0.5	0.7	1	2.3
	Internal referral	3-8	5.5	3.5	11	25.6
Duration of wait – first seen (1/2)						
	<4 weeks	3-40	21.5	26.2	43	100.0
Duration of wait -assessment to service (1/2)						
	<4 weeks	3-40	21.5	26.2	43	100.0
Duration of treatment (2/2)						
	4-13 weeks	3-27	15	17	30	69.8
	14-26 weeks	0-12	6	8.5	12	27.9
	27-52 weeks	-	-	-	1	2.3
Reason for admission (1/2)						
	Suicide	-	-	-	3	7.5
	Self harm	-	-	-	29	72.5
	Psychosis	-	-	-	1	2.5
	Eating disorder physical	-	-	-	2	5.0
	Family breakdown	-	-	-	5	12.5
Primary presentation (2/2)						
	Emotional disorder	1-8	4.5	4.9	9	20.9
	Conduct disorder	-	-	-	1	2.3
	Eating disorder	-	-	-	1	2.3
	Psychotic disorder	0-2	1	1.4	2	4.7

	DSH	0-30	15	21.2	30	69.8

8. EIP SERVICES

Total number of EIP services	22
Number of EIP services with service data	16
Number of EIP services with caseload data	12

SERVICE DATA

	N
Exclusion criteria (16/16)	
Moderate/severe learning disability	2
Currently taking medication	1
Geographic profile (15/16)	
Urban	10
Large town	6
Small town	1
Rural	2
Remote rural	1
Setting (15/16)	
Psychiatric hospital / unit	6
General hospital	1
Specialist mental health centre	3
Within the home	12
GP/Primary healthcare	5
Community based clinic	14
Social Services	4
Treatment approach (15/16)	
Individual therapy	15
Group therapy	6
Family therapy	14
Pharmacotherapy	14
24 hour cover (16/16)	4
Emergency out of hours care (16/16)	5
Assessment within 24 hours or NWD (16/16)	12
Target Groups	
16-17 year olds	6
Mild learning disability	3
Moderate/severe learning disability	3

Criminal justice system	3
Other providers (15/16)	
Other NHS	3
LA	6

	Range	*Mean*	*SD*
Age limit (15/16)			
Lower	0-16	12.8	3.7
Upper	17-35	21.5	7.1
Capacity (11/16)	14732	19	11.7
Population of area covered [thousands] (10/16)	59-296	134	90

CASELOAD DATA

	Range	*Mean*	*SD*	*Total*	*%*
Gender (12/12)					
Males		8.9	5.1	107	61.5
Females	0-12	5.6	4	67	38.5
Age groups (12/12)					
	0-10	2.8	3.6	34	19.5
15	0-6	2.2	1.8	26	14.9
16-18	0-22	7.8	6.9	93	53.4
19-25	0-8	1.8	3.1	21	12.1
Ethnicity (11/12)					
White British		3.2	2.2	35	22.3
White Irish	-	-	-	1	0.6
White Other	0-3	0.5	0.9	6	3.8
Mixed White Caribbean	0-3	0.6	1.1	7	4.5
Mixed White African	-	-	-	1	0.6
Mixed Other	0-2	0.5	0.8	5	3.2
Asian Indian	0-2	0.4	0.7	4	2.5
Asian Pakistani	0-3	0.4	0.9	4	2.5
Asian Bangladeshi	0-11	1.4	3.3	15	9.6
Asian Other	0-2	0.4	0.7	4	2.5
Black Caribbean	0-6	1.8	2.2	20	12.7
Black African	0-7	2.5	2.7	28	17.8
Black Other	0-4	1.2	1.4	13	8.3
Chinese	-	-	-	1	0.6
Other	0-2	0.5	0.8	6	3.8
Not Specified	0-3	0.6	1	7	4.5
Referral source (11/12)					
Primary Health Care	0-9	4.2	3.2	46	27.9
Education	0-2	0.5	0.7	5	3.0
Social Services	0-3	0.6	1	7	4.2
Youth Justice	0-1	0.2	0.4	2	1.2
Child Health	0-3	0.3	0.9	3	1.8
Adult Mental Health Service	0-17	3.3	5.3	36	21.8
Voluntary or Independent Sector	0-2	0.2	0.6	2	1.2
Self Referral	0-2	0.5	0.8	5	3.0
Internal Referral	0-15	4.5	4.8	49	29.7
Other	0-8	0.9	2.4	10	6.1

	Range	*Mean*	*SD*	*Total*	*%*
Duration of wait - first seen (10/12)					
< 4 weeks		5.6	4.5	56	96.6
4-13 weeks	0-2	0.2	0.6	2	3.4
Duration of wait -assessment to service (9/12)					
<4 weeks		6.7	5.7	60	93.8
4-13 weeks	0-4	0.4	1.3	4	6.3
Duration of treatment (12/12)					
<4 weeks	0-7	1.8	2.3	21	12.1
4-13 weeks	0-4	1.3	1.4	15	8.6
14-26 weeks	0-3	0.8	1	9	5.2
27-52 weeks	0-7	3.3	2.7	40	23.0
53+ weeks	0-17	7.4	6.7	89	51.1
Reason for admission (11/12)					
Psychosis	0-26	13.1	9	144	97.3
Eating disorder physical	0-2	0.2	0.6	2	1.4
Depression / anxiety	-	-	-	1	0.7
Confusional state	-	-	-	1	0.7
Primary presentation (12/12)					
Emotional disorder	0-2	0.3	0.6	3	1.7
Psychotic disorder	0-26	13.2	8.1	158	90.8
Not able to define	-	-	-	1	0.6
More than one disorder	0-5	1	1.9	12	6.9

9. OTHER SERVICES	Service Data
Total number of Other services	3
Number of Other services with service data	3
Number of Other services with caseload data	2

	N
Geographic profile (2/3)	
Urban	1
Large town	1
Small town	1
Rural	1
Remote rural	0
Setting (2/3)	
Psychiatric hospital / unit	1
General hospital	1
Specialist mental health centre	1
Within the home	1
GP/Primary healthcare	1
Community based clinic	1
Social Services	1
Treatment approach (2/3)	
Individual therapy	2
Group therapy	1
Family therapy	1
Pharmacotherapy	2
24 hour cover (2/3)	1
Target Groups (2/3)	
16-17 year olds	1
Criminal justice system	1
Other providers (3/3)	
LA	1
Other	2
Independent provider	1
Capacity (1/3)	3

	Range	*Mean*	*SD*
Age limit (3/3)			
Lower	0-16	9.3	8.3

Upper	18-19	18.3	0.6	

CASELOAD DATA

	Range	*Mean*	*SD*	*Total*	*%*
Gender (2/2)					
Males	21-39	30	12.7	60	60.6
Females	16-23	19.5	4.9	39	39.4
Age groups (2/2)					
0-4	0-9	4.5	6.4	9	9.1
5-9	2-20	11	12.7	22	22.2
10-14	2-8	5	4.2	10	10.1
15	6-7	6.5	0.7	13	13.1
16-18	13-20	16.5	4.9	33	33.3
19-25	5-7	6	1.4	12	12.1
Ethnicity (2/2)					
White British	35-57	46	15.6	92	97.9
White Other	-	-	-	1	1.1
Mixed White Caribbean	-	-	-	1	1.1
Referral source (1/2)					
Primary Health Care	-	-	-	3	8.1
Social Services	-	-	-	11	29.7
Youth Justice	-	-	-	5	13.5
Child Health	-	-	-	3	8.1
Self Referral	-	-	-	1	2.7
Other	-	-	-	14	37.8
Duration of treatment (2/2)					
<4 weeks	1-4	2.5	2.1	5	5.3
4-13 weeks	0-6	3	4.2	6	6.3
14-26 weeks	0-11	5.5	7.8	11	11.6
27-52 weeks	0-14	7	9.9	14	14.7
53+ weeks	0-59	29.5	41.7	59	62.1
Primary presentation (2/2)					
Emotional disorder	0-15	7.5	10.6	15	14.0
Conduct disorder	0-5	2.5	3.5	5	4.7
Psychotic disorder	-	-	-	1	0.9
Substance Abuse	-	-	-	1	0.9
Habit disorder	0-0	0	0	0	0.0
ASD	1-5	3	2.8	6	5.6
Developmental disorder	0-5	2.5	3.5	5	4.7
Not Able To Define	-	-	-	1	0.9
Other disorder	1-23	12	15.6	24	22.4
More Than One Disorder	12-37	24.5	17.7	49	45.8

Table 9. England CAMHS

1. Registered providers and services

	Known CAMHS providers [Trusts & PCTs] N=109	
	AIP service providers N=62	Not AIP service providers N=47
Submitted service data	44	-
Registered, but did not submit service data	8	20
Did not register	10	27

Known CAMHS providers submitted AIP data	44
Other providers submitted data	2
Total AIP service providers submitted data	N=46

Total number of AIP services submitted	N=78
By known CAMHS providers	75
By other providers	3

2. Type of data submitted

	N=78	%
Service data		
Submitted	51	*65.4*
Not submitted	27	*34.6*

Caseload data		
Submitted	37	*47.4*
Not submitted	41	*52.6*

3. AIP service type

	N=79	%
Intensive day service	13	*16.7*
Intensive outpatient service	11	*13.9*
Intensive home treatment service	11	*13.9*
Intensive treatment foster care	1	*1.3*
Other intensive outreach	8	*10.1*
Other specific therapeutic programme	5	*6.3*
Crisis intervention service	5	*6.3*
EIP service	22	*27.8*
Other service	3	*3.8*

4. Service data [services submitting service data only (N=51)]

Type of AIP service (51/51)	N	%
Intensive day service	7	*13.7*
Intensive outpatient service	8	*15.7*
Intensive home treatment services	5	*9.8*
Intensive treatment foster care	1	*2.0*
Other intensive outreach	5	*9.8*
Other specific therapeutic programme	3	*5.9*
Crisis intervention service	3	*5.9*
EIP services	16	*31.4*
Other service	3	*5.9*

Exclusion criteria (46/51)	N	*%*
Risk of suicide	0	*0*
Currently self-harming	0	*0*
High risk to others	3	*6.5*
Drug and/or alcohol abuse	1	*2.2*
Homelessness	2	*4.3*
Acute psychosis	2	*4.3*
Mild learning disability	1	*2.2*
Moderate/severe learning disability	7	*15.2*
Risk of absconding	1	*2.2*

Currently taking medication	1	*2.2*
Non-compliance with medication	0	*0*
Forensic history	3	*6.5*
Impending court appearance	1	*2.2*

Urban / Rural profile (39/51)	N	%
Urban (pop >200,000)	25	*64.1*
Large town (pop 50,000 to 200,000)	19	*48.7*
Small town (pop <50,000)	7	*17.9*
Rural	13	*33.3*
Remote rural	6	*15.4*

	Range	*Mean*	*SD*	*Total*[2]
Capacity (25/51)	3 – 60[1]	18.5	14.0	462

[1] Estimated capacity for <18s of additional EIP service approx N=130
[2]Total persons across all services where data reported

Setting (48/51)	N	%
psychiatric hospital / unit	20	*41.7*
general hospital	8	*16.7*
specialist mental health centre	11	*22.9*
within the home	33	*68.8*
GP/primary health care	13	*27.1*
community based clinic	34	*70.8*
social services	9	*18.8*
education establishment	12	*25.0*
voluntary sector	10	*20.8*

Approach (44/51)	N	%
individual therapy	44	*100*
group therapy	19	*43.2*
family therapy	37	*84.1*
pharmacotherapy	37	*84.1*

Rapid response (51/51)	N	%

24 hour cover	11	*21.6*
Emergency out of hours care	13	*25.5*
Assessment within 24 hours or NWD	29	*56.9*

Target groups (51/51)	N	*%*
16-17 year olds	14	*27.5*
mild learning disability	6	*11.8*
moderate/severe learning disability	6	*11.8*
criminal justice system	8	*15.7*

Other providers (47/51**)**	N	*%*
other NHS	5	*10.6*
LA	13	*27.7*
other	8	*17.0*
CVS	0	*0*
independent	1	*2.1*
other organisation not including respondent	0	*0*

Population of area covered by AIP (18/51) [thousands]	*Range*	*Mean*	*SD*	*Total*[1]
	55.5 - 1250	211	271	3797

Staff (33/51)	*Range*	*Mean*	*SD*	*Total*[1]	*%*
Nurses	0-24.6	2.5	4.5	83.1	*53.8*
Psychiatrists	0-2.9	0.5	0.7	15.4	*10.0*
Clinical Psychologists	0-1	0.2	0.3	5.6	*3.6*
Clinical Psychologists (trainee)	0-1	0.1	0.2	2.0	*1.3*
Educational Psychologists	0-0.2	0.0	0.1	0.6	*0.4*
Educational Psychologists (trainee)	0 - 0	0-0	0.0	0.0	
Social worker	0-2	0.2	0.5	6.5	*4.2*
Primary mental health worker	0-1	0.1	0.2	2.1	*1.4*
Psychotherapist	0-0.8	0.1	0.2	2.1	*1.4*
Family Therapist	0-1	0.1	0.2	4.0	*2.6*
Occupational Therapist	0-2	0.1	0.4	4.8	*3.1*
Other qualified therapists	0-1.1	0.1	0.2	2.0	*1.3*
Other qualified staff	0-0.9	0.0	0.2	0.9	*0.6*
Other unqualified staff who work with clients	0 - 8	0.5	0-8	0.5	*0.4*
Non-clinical managers	0-1	0.1	0.2	2.6	*1.7*
Administrative staff	0-4.62	0.6	1.1	21.2	*13.7*
Other staff	0-0.56	0.0	0.1	1.1	*0.7*

5. Caseload data [services providing caseload data only (N=37)]

	Range	*Mean*	*SD*	*Total*[1]	%
Number of cases supported (35/37)	0 - 142	37.5	40.9	1313	
Age (34/37)					
Lower limit	0-16	10.4	4.8		
Upper limit	11-35	18.8	4.4		
Gender (36/37)					
Males	0-120	24.8	31.5	891	*65.4*
Females	0-64	13.1	13.1	472	*34.6*
Males aged 18 and under	0-82	18.0	21.3	647	58.7
Females aged 18 and under	0-64	12.6	13.1	455	41.3
Age (41/42)					
0-4	0-56	2.2	9.5	79	*5.8*
5-9	0-60	6.5	13.6	235	*17.2*
10-14	0-26	6.1	8.1	220	*16.1*
15	0-15	3.0	3.6	107	*7.9*
16-18	0-54	12.8	12.8	461	*33.8*
19-25	0-55	7.3	14.3	261	*19.1*
Ethnicity (34/37)					
White British	1-121	23.4	31.2	795	*63.5*
White Irish	0-9	0.7	1.8	24	*1.9*
White Other	0-17	1.6	3.4	53	*4.2*
Mixed White Caribbean	0-4	1.1	1.3	36	*2.9*
Mixed White African	0-4	0.3	0.9	11	*0.9*
Mixed White Asian	0-2	0.2	0.5	7	*0.6*
Mixed Other	0-3	0.4	0.8	13	*1.0*
Asian Indian	0-3	0.3	0.7	11	*0.9*
Asian Pakistani	0-4	0.4	1.0	14	*1.1*
Asian Bangladeshi	0-11	0.8	2.2	27	*2.2*
Asian Other	0-3	0.4	0.8	14	*1.1*
Black Caribbean	0-13	1.1	2.6	38	*3.0*
Black African	0-7	1.5	2.2	51	*4.1*
Black Other	0-4	0.5	1.1	18	*1.4*
Chinese	0-1	0.2	0.4	6	*0.5*
Other	0-8	0.7	1.7	23	*1.8*
Not Specified	0-52	3.3	9.3	111	*8.9*
Referral source (22/37)					
Primary health care	0-53	6.9	12.2	152	*31.9*
Education	0-4	0.6	1.1	14	*2.9*
Social services	0-11	0.9	2.4	20	*4.2*
Youth justice	0-5	0.4	1.1	8	*1.7*
Child health	0-11	0.8	2.4	17	*3.6*

Learning disability service	0-0	0.0	0.0	0	*0.0*
Adult mental health service	0-17	1.6	4.0	36	*7.6*
Voluntary or independent sector	0-2	0.2	0.5	5	*1.1*
Self referral	0-2	0.3	0.7	7	*1.5*
Internal referral	0-39	8.3	9.8	183	*38.4*
Other	0-9	1.5	3.0	34	*7.1*

	Range	*Mean*	*SD*	*Total*[1]	%
Duration of wait for first appointment – new cases (20/37)					
<4 weeks	0-40	8.5	11.2	169	*91.8*
4-13 weeks	0-8	0.7	1.9	14	*7.6*
14-26 weeks	0-1	0.1	0.2	1	*0.5*
27+ weeks	0-0	0.0	0.0	0	*0.0*
Duration of wait assessment to treatment – new cases (23/37)					
<4 weeks	0-83	15.2	20.0	350	*77.3*
4-13 weeks	0-49	3.0	10.4	70	*15.5*
14-26 weeks	0-19	0.9	4.0	21	*4.6*
27+ weeks	0-12	0.5	2.5	12	*2.6*
Duration of treatment (35/37)					
<4 weeks	0-76	8.4	15.3	293	*23.1*
4-13 weeks	0-49	7.2	11.2	252	*19.9*
14-26 weeks	0-31	5.7	8.6	200	*15.8*
27-52 weeks	0-32	6.0	8.1	210	*16.6*
53+ weeks	0-59	8.9	12.8	311	*24.6*
Reason for admission (24/37)					
Suicide	0-21	1.9	4.7	45	*6.6*
Self harm	0-29	3.6	7.6	87	*12.7*
Harm to others	0-67	3.5	13.7	83	*12.2*
Psychosis	0-26	7.6	8.1	183	*26.8*
Eating disorder	0-18	2.5	4.7	60	*8.8*
Depression / anxiety	0-61	5.2	13.4	125	*18.3*
Confusional state	0-9	0.4	1.8	10	*1.5*
Family breakdown	0-9	0.8	2.1	18	*2.6*
Homelessness	0-1	0.1	0.3	2	*0.3*
Other	0-18	2.9	5.7	70	*10.2*
Primary presenting disorder (33/37)[2]					
Hyperkinetic disorder	0-20	2.1	5.4	70	*5.5*
Emotional disorder	0-61	7.3	13.6	241	*18.8*
Conduct disorder	0-47	2.4	8.3	80	*6.2*
Eating disorder	0-96	5.6	17.0	186	*14.5*
Psychotic disorder	0-26	7.0	7.5	231	*18.0*
Deliberate self-harm	0-30	4.2	8.6	139	*10.8*
Substance abuse	0-1	0.1	0.2	2	*0.2*
Habit disorder	0-8	0.4	1.5	13	*1.0*

Autistic spectrum disorder	0-23	1.8	5.2	58	*4.5*
Developmental disorder	0-6	0.6	1.4	19	*1.5*
Not able to define	0-33	1.4	5.8	45	*3.5*
Other	0-6	0.3	1.2	11	*0.9*
More than one disorder	0-68	5.7	14.4	187	*14.6*

[1]Total persons across all services where data reported
[2]Two services excluded due to double counting of categories

Table 10 – Wales CAMHS

4. Registered providers and services

Total number of Trusts providing CAMHS	12
Number of Trusts providing AIP services	5
Total number of AIP services	6
Number of AIP services submitting data	6

5. AIP service type

	N=6	%
Intensive day service	2	*33.3*
Intensive home treatment service	2	*33.3*
Other specific therapeutic programmes	1	*16.7*
Other service	1	*16.7*

3. Service data [services submitting service data only (N=6)]

Exclusion criteria (6/6)	N	%
Risk of suicide	0	*0.0*
Currently self-harming	0	*0.0*
High risk to others	2	*33.3*
Drug and/or alcohol abuse	4	*66.7*
Homelessness	1	*16.7*
Acute psychosis	0	*0.0*
Mild learning disability	0	*0.0*
Moderate/severe learning disability	5	*83.3*
Risk of absconding	0	*0.0*
Currently taking medication	0	*0.0*
Non-compliance with medication	0	*0.0*
Forensic history	3	*50.0*
Impending court appearance	1	*16.7*

Urban / Rural profile (3/6)	N	%
Urban (pop >200,000)	0	*0.0*
Large town (pop 50,000 to 200,000)	1	*16.7*
Small town (pop <50,000)	3	*50.0*
Rural	3	*50.0*
Remote rural	2	*33.3*

Capacity (2/6)	*Range*	*Mean*	*SD*	*Total*[2]
	6/8	7.0	1.4	14

[2]Total persons across all services where data reported

Setting (6/6)	N	*%*
psychiatric hospital / unit	3	*50.0*
general hospital	0	*0.0*
specialist mental health centre	1	*16.7*
within the home	4	*66.7*
GP/primary health care	0	*0.0*
community based clinic	2	*33.3*
social services	1	*16.7*
education establishment	1	*16.7*
voluntary sector	0	*0.0*

Staff (3/3)		
Nurses	27	*53.9*
Psychiatrists	4.9	*9.8*
Clinical Psychologists	1.5	*3.0*
Clinical Psychologists (trainee)	0	*0.0*
Educational Psychologists	0	*0.0*
Educational Psychologists (trainee)	0	*0.0*
Social worker	1	*2.0*
Primary mental health worker	0.5	*1.0*
Psychotherapist	1.8	*3.6*
Family Therapist	0.9	*1.8*
Occupational Therapist	2	*4.0*
Other qualified therapists	0	*0.0*
Other qualified staff	0	*0.0*
Other unqualified staff who work with clients	4.6	*9.2*
Non-clinical managers	0.3	*0.6*
Administrative staff	1	*2.0*
Other staff	4.6	*9.2*

Approach (6/6)		
individual therapy	6	*100.0*
group therapy	4	*66.7*
family therapy	6	*100.0*
pharmacotherapy	5	*83.3*

Rapid response (6/6)

24 hour cover	2	*33.3*
Emergency out of hours care	0	*0.0*
Assessment within 24 hours or NWD	3	50.0

Target groups (6/6)		
16-17 year olds	1	*16.7*
mild learning disability	1	*16.7*
moderate/severe learning disability	0	*0*
criminal justice system	1	*16.7*
Other providers (4/4)		
LEA	2	*50.0*

Population of area covered [thousands] (5/6)	*Range*	*Mean*	*SD*	*Total*[1]
	40-440	215	206	1077

4. Caseload data [services providing caseload data only (N=4)]

	Range	*Mean*	*SD*	*Total*[1]
Number of cases supported (4/4)	2-120	40.5	53.8	162
Age (4/4)				
Lower limit	5-13	8.8	4.3	
Upper limit	12-18	16.5	3.0	
Gender (4/4)				
Males	0-34	14.8	15.4	59
Females	2-66	20.8	30.4	83
Age (4/4)				
0-4	-	-	-	0
5-9	0-18	7.0	8.7	28
10-14	1-12	6.0	4.5	24
15	0-23	7.3	10.9	29
16-18	0-55	15.3	26.6	61
19-25	-	-	-	0

	Range	*Mean*	*SD*	*Total*[1]
Ethnicity (4/4)				
White British	2-97	34.8	42.5	139
White Irish	-	-	-	0
White Other	-	-	-	0
Mixed White Caribbean	0-2	0.5	1.0	2
Mixed White African	-	-	-	0
Mixed White Asian	-	-	-	1
Mixed Other	-	-	-	0
Asian Indian	-	-	-	0
Asian Pakistani	-	-	-	0
Asian Bangladeshi	-	-	-	0
Asian Other	-	-	-	0
Black Caribbean	-	-	-	0
Black African	-	-	-	0
Black Other	-	-	-	0
Chinese	-	-	-	0
Other	-	-	-	0
Not Specified	-	-	-	0
Referral Source				
Primary health care	0-17	4.3	8.5	17
Education	-	-	-	0
Social services	0-30	7.5	15.0	30
Youth justice	0-3	0.8	1.5	3
Child health	-	-	-	0
Learning disability service	-	-	-	0
Adult mental health service	-	-	-	0
Voluntary or independent sector	-	-	-	0
Self referral	-	-	-	0
NHS	2-50	23.0	20.2	50
Other	-	-	-	0
Duration of wait for first appointment – new cases (3 /4)				
<4 weeks	0-77	25.7	44.5	77
4-13 weeks	13-23	17.3	5.1	52
14-26 weeks	0-11	3.7	6.4	11
27+ weeks	-	-	-	0
Duration of wait assessment to treatment – new cases (3/4)				
<4 weeks	11-77	34.7	36.7	104
4-13 weeks	0-19	10.7	9.7	32
14-26 weeks	0-4	1.3	2.3	4
27+ weeks	-	-	-	0
Duration of treatment (3/4)				
<4 weeks	0-8	2.7	4.6	8
4-13 weeks	0-11	5.0	5.6	15
14-26 weeks	6-48	24.7	21.4	74

27-52 weeks	0-7	4.7	4.0	14
53+ weeks	0-26	9.7	14.2	29

	Range	*Mean*	*SD*	*Total*[1]
Reason for admission (3/4)				
Suicide	0-22	8.3	11.9	25
Self harm	0-30	10.0	17.3	30
Harm to others	0-11	4.0	6.1	12
Psychosis	0-4	1.7	2.1	5
Eating disorder	0-16	7.3	8.1	22
Depression / anxiety	0-17	7.0	8.9	21
Confusional state	-	-	-	0
Family breakdown	-	-	-	0
Homelessness	-	-	-	0
Other	0-24	8.3	13.6	25
Primary presenting disorder (3/4)				
Hyperkinetic disorder	0-3	1.0	1.7	3
Emotional disorder	0-9	5.0	4.6	15
Conduct disorder	-	-	-	1
Eating disorder	0-6	2.0	3.5	6
Psychotic disorder	-	-	-	0
Deliberate self-harm	0-3	1.0	1.7	3
Substance abuse	-	-	-	0
Habit disorder	0-1	0.3	0.6	1
Autistic spectrum disorder	0-7	2.3	4.0	7
Developmental disorder	0-4	1.3	2.3	4
Not able to define	-	-	-	0
Other	-	-	-	0
More than one disorder	0-100	33.3	57.7	100

[1]*Total persons across all services where data reported*

Table 11 - Northern Ireland CAMHS

6. Registered providers and services

Total number of Trusts	
Number of Trusts providing AIP services	1
Total number of AIP services	1
Number of AIP services submitting data	1

7. AIP service type

	N=5
Intensive day service	1

3. Service data [services submitting service data only (N=1)]

Exclusion criteria	N
Risk of suicide	0
Currently self-harming	0
High risk to others	1
Drug and/or alcohol abuse	1
Homelessness	1
Acute psychosis	0
Mild learning disability	0
Moderate/severe learning disability	1
Risk of absconding	0
Currently taking medication	0
Non-compliance with medication	0
Forensic history	1
Impending court appearance	0

Urban / Rural profile	N
Urban (pop >200,000)	1
Large town (pop 50,000 to 200,000)	1
Small town (pop <50,000)	1
Rural	1
Remote rural	1

	N
Capacity	6

Setting	N
psychiatric hospital / unit	1
general hospital	0
specialist mental health centre	0
within the home	0
GP/primary health care	0
community based clinic	0
social services	0
education establishment	0
voluntary sector	0

Staff	N
Nurses	3.5
Psychiatrists	0.5
Clinical Psychologists	0.25
Clinical Psychologists (trainee)	0.5
Educational Psychologists	0
Educational Psychologists (trainee)	0
Social worker	0.5
Primary mental health worker	0
Psychotherapist	0.5
Family Therapist	0
Occupational Therapist	0.5
Other qualified therapists	0.5
Other qualified staff	0
Other unqualified staff who work with clients	3
Non-clinical managers	1
Administrative staff	1
Other staff	0

Approach	N
individual therapy	1
group therapy	1
family therapy	0
pharmacotherapy	1

Rapid response	N
24 hour cover	0
Emergency out of hours care	0
Assessment within 24 hours or NWD	0

Target groups	N
16-17 year olds	0
mild learning disability	0
moderate/severe learning disability	0
criminal justice system	0

Other providers	
other NHS	0
LA	0
other	0
CVS	0
independent	0

4. Caseload data [services providing caseload data only (N=1)]

	N
Number of cases supported	30
Age	
Lower limit	13
Upper limit	17
Gender	
Males	9
Females	21
Age	
0-4	0
5-9	0
10-14	2
15	13
16-18	15
19-25	0

Ethnicity

White British	0
White Irish	0
White Other	0
Mixed White Caribbean	0
Mixed White African	0
Mixed White Asian	0
Mixed Other	0
Asian Indian	0
Asian Pakistani	0
Asian Bangladeshi	0
Asian Other	0
Black Caribbean	0
Black African	0
Black Other	0
Chinese	0
Other	0
Not Specified	30

Referral source

Primary health care	0
Education	0
Social services	0
Youth justice	0
Child health	0
Learning disability service	0
Adult mental health service	0
Voluntary or independent sector	0
Self referral	0
NHS	30
Other	0

Duration of wait for first appointment – new cases

<4 weeks	No info
4-13 weeks	“
14-26 weeks	“
27+ weeks	“

Duration of wait assessment to treatment – new cases

<4 weeks	“
4-13 weeks	“
14-26 weeks	“
27+ weeks	“

Duration of treatment

<4 weeks	“
4-13 weeks	“
14-26 weeks	“

27-52 weeks	“
53+ weeks	“

Reason for admission	
Suicide	No info
Self harm	“
Harm to others	“
Psychosis	“
Eating disorder	“
Depression / anxiety	“
Confusional state	“
Family breakdown	“
Homelessness	“
Other	“
Primary presenting disorder	
Hyperkinetic disorder	“
Emotional disorder	“
Conduct disorder	“
Eating disorder	“
Psychotic disorder	“
Deliberate self-harm	“
Substance abuse	“
Habit disorder	“
Autistic spectrum disorder	“
Developmental disorder	“
Not able to define	“
Other	“
More than one disorder	“

Table 12 – Scotland CAMHS

Registered providers and services

Total number of Trusts	
Number of Trusts providing AIP services	
Total number of AIP services	
Number of AIP services submitting data	5

AIP service type

	N=5	%
Intensive outpatient service	1	*20.0*
Other intensive outreach	2	*40.0*
EIP services	2	*40.0*

3. Service data [services submitting service data only (N=4)]

Exclusion criteria (4/4)	N	%
Risk of suicide	0	*0*
Currently self-harming	0	*0*
High risk to others	0	*0*
Drug and/or alcohol abuse	0	*0*
Homelessness	0	*0*
Acute psychosis	0	*0*
Mild learning disability	0	*0*
Moderate/severe learning disability	1	*25.0*
Risk of absconding	0	*0*
Currently taking medication	0	*0*
Non-compliance with medication	0	*0*
Forensic history	0	*0*
Impending court appearance	0	*0*

Urban / Rural profile (4/4)	N	%
Urban (pop >200,000)	1	*25.0*
Large town (pop 50,000 to 200,000)	2	*50.0*
Small town (pop <50,000)	3	*75.0*
Rural	4	*100.0*
Remote rural	2	*50.0*

	Range	*Mean*	*SD*	*Total*[2]
Capacity (2/4)	15-40	27.5	17.7	55

[2]*Total persons across all services where data reported*

Setting (4/4)	N	%
psychiatric hospital / unit	3	*75.0*
general hospital	2	*50.0*
specialist mental health centre	1	*25.0*
within the home	2	*50.0*
GP/primary health care	2	*50.0*
community based clinic	3	*75.0*
social services	2	*50.0*
education establishment	2	*50.0*
voluntary sector	1	*25.0*

Staff (3/3)	N	%
Nurses	9.3	*56.0*
Psychiatrists	4.2	*25.3*
Clinical Psychologists	0.6	*3.6*
Clinical Psychologists (trainee)	1.2	*7.2*
Educational Psychologists	0.0	*0.0*
Educational Psychologists (trainee)	0.0	*0.0*
Social worker	0.0	*0.0*
Primary mental health worker	0.0	*0.0*
Psychotherapist	0.0	*0.0*
Family Therapist	0.1	*0.6*
Occupational Therapist	1.0	*6.0*
Other qualified therapists	0.0	*0.0*
Other qualified staff	0.0	*0.0*
Other unqualified staff who work with clients	0.0	*0.0*
Non-clinical managers	0.0	*0.0*
Administrative staff	0.2	*1.2*
Other staff	0.0	*0.0*

Approach (4/4)	N	%
individual therapy	4	*100.0*
group therapy	2	*50.0*
family therapy	4	*100.0*
pharmacotherapy	4	*100.0*

Rapid response (4/4)	N	%
24 hour cover	0	*0.0*
Emergency out of hours care	0	*0.0*
Assessment within 24 hours or	2	*50.0*

NWD

Target groups (4/4)	N	*%*
16-17 year olds	0	*0.0*
mild learning disability	0	*0.0*
moderate/severe learning disability	0	*0.0*
criminal justice system	0	*0.0*

Other providers (4/4)	N	*%*
other NHS	0	*0.0*
LA	0	*0.0*
other	0	*0.0*
CVS	0	*0.0*
independent	0	*0.0*
other organisation not including respondent	0	*0.0*

4. Caseload data [services providing caseload data only (N=4)]

	Range	*Mean*	*SD*	*Total*[1]	%
Number of cases supported (4/4)	6-45	20.8	17.3	83	
Age (4/4)					
Lower limit	0-14	6.3	7.3	25	*25.3*
Upper limit	6-22	18.5	2.5	74	*74.7*
Gender (4/4)					
Males	2-40	14.0	17.5	56	*58.9*
Females	4-17	9.8	6.8	39	*41.1*
Age (4/4)					
0-4	0-2	0.5	1.0	2	*2.1*
5-9	0-8	2.3	3.9	9	*9.5*
10-14	1-8	4.8	2.9	19	*20.0*
15	0-5	1.8	2.4	7	*7.4*
16-18	0-34	11.3	16.0	45	*47.4*
19-25	0-13	3.3	6.5	13	*13.7*
Ethnicity (4/4)					
White British	6-39	19.3	14.6	77	*95.1*
White Irish	-	-	-	0	*0.0*
White Other	-	-	-	0	*0.0*

Mixed White Caribbean	-	-	-	0	*0.0*
Mixed White African	-	-	-	0	*0.0*
Mixed White Asian	0-1	0.3	0.5	1	*1.2*
Mixed Other	-	-	-	0	*0.0*
Asian Indian	-	-	-	0	*0.0*
Asian Pakistani	0-1	0.3	0.5	1	*1.2*
Asian Bangladeshi	-	-	-	0	*0.0*
Asian Other	-	-	-	0	*0.0*
Black Caribbean	-	-	-	0	*0.0*
Black African	0-2	0.5	1.0	2	*2.5*
Black Other	-	-	-	0	*0.0*
Chinese	-	-	-	0	*0.0*
Other	-	-	-	0	*0.0*
Not Specified	-	-	-	0	*0.0*

[1]Total persons across all services where data reported

	Range	*Mean*	*SD*	*Total*	*%*
Referral source (4/4)					
Primary health care	0-6	1.5	3.0	6	*7.4*
Education	-	-	-	0	*0.0*
Social services	-	-	-	0	*0.0*
Youth justice	-	-	-	0	*0.0*
Child health	-	-	-	0	*0.0*
Learning disability service	-	-	-	1	*1.2*
Adult mental health service	0-2	0.5	1.0	2	*2.5*
Voluntary or independent sector	-	-	-	0	*0.0*
Self referral	-	-	-	0	*0.0*
NHS	0-40	18.0	17.0	72	*88.9*
Other	-	-	-	0	*0.0*
Duration of wait for first appointment – new cases (4/4)					
<4 weeks	6-34	18.0	12.4	72	*88.9*
4-13 weeks	0-9	2.3	4.5	9	*11.1*
Duration of wait assessment to treatment – new cases (4/4)					
<4 weeks	6-36	18.5	13.2	74	*100.0*
Duration of treatment (4/4)					
<4 weeks	0-5	1.5	2.4	6	*8.6*
4-13 weeks	0-6	2.5	3.0	10	*14.3*
14-26 weeks	0-4	1.8	2.1	7	*10.0*
27-52 weeks	0-4	2.0	1.6	8	*11.4*
53+ weeks	0-31	9.8	14.4	39	*55.7*
Reason for admission (4/4)					
Suicide	0-7	3.0	3.6	12	*14.1*
Self harm	0-2	0.8	1.0	3	*3.5*
Harm to others	0-2	0.5	1.0	2	*2.4*
Psychosis	1-43	12.8	20.2	51	*60.0*
Eating disorder	0-2	0.5	1.0	2	*2.4*
Depression / anxiety	0-10	2.8	4.9	11	*12.9*
Confusional state	0-2	1.0	1.2	4	*4.7*
Family breakdown	-	-	-	0	*0.0*
Homelessness	-	-	-	0	*0.0*
Other	-	-	-	0	*0.0*
Primary presenting disorder (4/4)					
Hyperkinetic disorder	-	-	-	0	*0.0*
Emotional disorder	0-16	5.8	7.6	23	*28.8*
Conduct disorder	-	-	-	0	*0.0*
Eating disorder	0-2	0.5	1.0	2	*2.5*
Psychotic disorder	1-43	12.5	20.4	50	*62.5*
Deliberate self-harm	-	-	-	1	*1.3*
Substance abuse	-	-	-	0	*0.0*

Habit disorder	-	-	-	0	*0.0*
Autistic spectrum disorder	0-2	0.5	1.0	2	*2.5*
Developmental disorder	-	-	-	0	*0.0*
Not able to define	-	-	-	1	*1.3*
Other	-	-	-	0	*0.0*
More than one disorder	-	-	-	1	*1.3*

Table 13 – Early intervention in psychosis, adult mental health services

	Range	*Mean*	*SD*
Age (153/153)			
Lower limit	13-17	14.3	0.8
Upper limit	24-65	35.3	4.5
Targets under-25s (152/153)	N		
Yes	69		
No	83		
Setting			
A & E (150/153)	26		
Community mental health centre (151/153)	106		
Community venues (151/153)	126		
General hospital (149/153)	28		
Primary care (149/153)	79		
Psychiatric hospital (151/153)	101		
Service users' homes (151/153)	124		
Telephone line (76/153)	76		
Other (153/153)	31		
Approach			
Individual therapy (152/153)	101		
CBT (152/153)	135		
Group therapy (150/153)	51		
Family therapy (151/153)	108		
Availability			
Weekdays (151/153)			
Always	151		
Sometimes	0		
Never	0		
Weekday evenings (114/153)			
Always	21		

Sometimes	48
Never	45
Weekend days (105/153)	
Always	20
Sometimes	21
Never	64
Nights (95/153)	
Always	5
Sometimes	4
Never	86

Table 14 – Independent CAMHS

8. Registered providers and services

Total number of independent CAMHS providers	27
Number of independents providing AIP services	9
Number of independents not providing AIP services	17
Number of independents AIP service provision not known	1
Number of providers sent questionnaire	11
Number of known AIP services	0
Number of known AIP services submitting data	5

9. AIP service type

	N=5	%
Intensive day service	3	*60.0*
Intensive outpatient service	1	*20.0*
Other specific therapeutic programme	1	*20.0*

3. Service data [services submitting service data only (N=5)]

Exclusion criteria (5/5)	N	%
Risk of suicide	1	*20.0*
Currently self-harming	0	*0.0*
High risk to others	2	*40.0*
Drug and/or alcohol abuse	1	*20.0*
Homelessness	3	*60.0*
Acute psychosis	1	*20.0*
Mild learning disability	1	*20.0*
Moderate/severe learning disability	3	*60.0*
Risk of absconding	1	*20.0*
Currently taking medication	0	*0.0*
Non-compliance with medication	0	*0.0*
Forensic history	2	*40.0*
Impending court appearance	0	*0.0*

Urban / Rural profile (3/5)	N	%
Urban (pop >200,000)	2	*66.7*
Large town (pop 50,000 to 200,000)	2	*66.7*
Small town (pop <50,000)	2	*66.7*
Rural	2	*66.7*
Remote rural	2	*66.7*

	Range	*Mean*	*SD*	*Total*[2]
Capacity (4/5)	1-15	9.5	6.0	38

[2]*Total persons across all services where data reported*

Setting (5/5)	N	%
psychiatric hospital / unit	5	*100.0*
general hospital	0	*0.0*
specialist mental health centre	1	*20.0*
within the home	1	*20.0*
GP/primary health care	0	*0.0*
community based clinic	0	*0.0*
social services	1	*20.0*
education establishment	2	*40.0*
voluntary sector	0	*0.0*

Approach (5/5)		
individual therapy	5	*100.0*
group therapy	4	*80.0*
family therapy	5	*80.0*
pharmacotherapy	4	*80.0*

Rapid response (5/5)		
24 hour cover	3	*60.0*
Emergency out of hours care	2	*40.0*
Assessment within 24 hours or NWD	*3*	*60.0*

Target groups (5/5)		
16-17 year olds	0	*0.0*
mild learning disability	0	*0.0*
moderate/severe learning disability	0	*0.0*
criminal justice system	0	*0.0*

Other providers (5/5)

other NHS	0	*0.0*
LA	0	*0.0*
other	0	*0.0*
CVS	0	*0.0*
independent	0	*0.0*
other organisation not including respondent	0	*0.0*

4. Caseload data [services providing caseload data only (N=5)]

	Range	*Mean*	*SD*	*Total*[1]	%
Number of cases supported (5/5)	1-31	7.8	13.0	39	
Age (5/5)					
Lower limit	8-14	11.6	2.2		
Upper limit	17-65	27.0	21.2		
Gender (5/5)					
Males	0-5	1.0	2.2	5	*12.8*
Females	1-26	6.8	10.8	34	*87.2*
Age (5/5					
0-4	-	-	-	0	*0.0*
5-9	-	-	-	0	*0.0*
10-14	0-7	1.4	2.1	7	*17.9*
15	0-8	1.8	3.5	9	*23.1*
16-18	0-16	4.6	6.5	23	*59.0*
19-25	-	-	-	0	*0.0*
Ethnicity (4/5)					
White British	0-4	1.8	1.7	7	*87.5*
White Irish	-	-	-	0	*0.0*
White Other	0-1	0.3	0.5	1	*12.5*
Mixed White Caribbean	-	-	-	0	*0.0*
Mixed White African	-	-	-	0	*0.0*
Mixed White Asian	-	-	-	0	*0.0*
Mixed Other	-	-	-	0	*0.0*
Asian Indian	-	-	-	0	*0.0*
Asian Pakistani	-	-	-	0	*0.0*
Asian Bangladeshi	-	-	-	0	*0.0*
Asian Other	-	-	-	0	*0.0*
Black Caribbean	-	-	-	0	*0.0*
Black African	-	-	-	0	*0.0*

Black Other	-	-	-	0	*0.0*
Chinese	-	-	-	0	*0.0*
Other	-	-	-	0	*0.0*
Not Specified	-	-	-	0	*0.0*

	Range	*Mean*	*SD*	*Total*[1]	%
Referral source (5/5					
Primary health care	-	-	-	0	*0.0*
Education	-	-	-	0	*0.0*
Social services	-	-	-	0	*0.0*
Youth justice	-	-	-	0	*0.0*
Child health	-	-	-	0	*0.0*
Learning disability service	-	-	-	0	*0.0*
Adult mental health service	-	-	-	0	*0.0*
Voluntary or independent sector	-	-	-	0	*0.0*
Self referral	-	-	-	0	*0.0*
NHS	0-31	6.8	13.5	34	*87.2*
Other	0-4	1.0	1.7	5	*12.8*
Duration of wait for first appointment – new cases (5/5)					
<4 weeks	1-31	7.8	13.0	39	*100.0*
4-13 weeks	-	-	-	0	*0.0*
14-26 weeks	-	-	-	0	*0.0*
27+ weeks	-	-	-	0	*0.0*
Duration of wait assessment to treatment – new cases (5/5)					
<4 weeks	1-31	7.8	13.0	39	*100.0*
4-13 weeks	-	-	-	0	*0.0*
14-26 weeks	-	-	-	0	*0.0*
27+ weeks	-	-	-	0	*0.0*
Duration of treatment (5/5)					
<4 weeks	0-13	2.8	5.7	14	*35.9*
4-13 weeks	0-8	2.6	3.4	13	*33.3*
14-26 weeks	0-6	1.6	2.5	8	*20.5*
27-52 weeks	0-4	0.8	1.8	4	*10.3*
53+ weeks	-	-	-	0	*0.0*
Reason for admission (4/5)					
Suicide	-	-	-	0	*0.0*
Self harm	-	-	-	0	*0.0*
Harm to others	-	-	-	0	*0.0*
Psychosis	0-1	0.5	0.6	2	*25.0*
. Eating disorder	0-4	1.3	1.9	5	*62.5*
Depression / anxiety	0-1	0.3	0.5	1	*12.5*
Confusional state	-	-	-	0	*0.0*
Family breakdown	-	-	-	0	*0.0*
Homelessness	-	-	-	0	*0.0*
Other	-	-	-	0	*0.0*

	Range	*Mean*	*SD*	*Total*[1]	%
Primary presenting disorder (4/5					
Hyperkinetic disorder	-	-	-	0	*0.0*
Emotional disorder	-	-	-	1	*12.5*
Conduct disorder	-	-	-	0	*0.0*
Eating disorder	0-4	1.3	1.9	5	*62.5*
Psychotic disorder	-	-	-	0	*0.0*
Deliberate self-harm	-	-	-	1	*12.5*
Substance abuse	-	-	-	0	*0.0*
Habit disorder	-	-	-	0	*0.0*
Autistic spectrum disorder	-	-	-	0	*0.0*
Developmental disorder	-	-	-	0	*0.0*
Not able to define	-	-	-	0	*0.0*
Other	-	-	-	0	*0.0*
More than one disorder	-	-	-	1	*12.5*

[1]*Total persons across all services where data reported*

Appendix 1

Search Strategy

Step One Search Strategy

Search Strategy: Randomised Controlled Trials

(Cochrane sensitive search strategy)

1 randomized controlled trial.pt.
2 controlled clinical trial.pt.
3 randomized controlled trials.sh.
4 random allocation.sh.
5 double blind method.sh.
6 single blind method.sh.
7 1 or 2 or 3 or 4 or 5 or 6
8 (animals not human).sh.
9 7 not 8
10 clinical trial.pt.
11 exp clinical trials/
12 (clin$ adj25 trial$).ti,ab.
13 ((singl$ or doubl$ or trebl$ or tripl$) adj25 (blind$ or mask$)).ti,ab.
14 placebos.sh.
15 placebo$.ti,ab.
16 random$.ti,ab.
17 research design.sh.
18 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17
19 18 not 8
20 19 not 9
21 comparative study.sh.
22 exp evaluation studies/
23 follow up studies.sh.
24 prospective studies.sh.
25 (control$ or prospectiv$ or volunteer$).ti,ab.
26 21 or 22 or 23 or 24 or 25
27 26 not 8
28 27 not (9 or 20)
29 9 or 20 or 28

(Settings of Care)

30 Residence Characteristics/
31 Home Care Services/
32 Outpatients/
33 Ambulatory Care/
34 Residential Treatment/
35 Day Care/
36 Foster Home Care/

37 Health Facilities, Proprietary/ or Skilled Nursing Facilities/ or Assisted Living Facilities/ or Ambulatory Care Facilities/ or Intermediate Care Facilities/ or Residential Facilities/ or Health Facilities/
38 prison$.mp. or Prisons/
39 residential facilities/ or assisted living facilities/ or group homes/ or halfway houses/ or nursing homes/ or orphanages/
40 Child Day Care Centers/ or child day care centres.mp.
41 community$.mp. [mp=title, original title, abstract, name of substance word, subject heading word]
42 alternative$.mp. [mp=title, original title, abstract, name of substance word, subject heading word]
43 (school$ or schools).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
44 exp Substance Abuse Treatment Centers/
45 ((outpatient or home or residential) adj care).tw.
46 ((outpatient or day) adj clinic?).tw.
47 day clinic.tw.
48 early intervention.tw.
49 (outreach adj (treatment or program$ or assertive or community)).tw.
50 (assertive adj (treatment or community)).tw.
51 (mental adj service$).tw.
52 (psychiatr$ adj service$).tw.
53 dialectical behavio?r therapy.tw.
54 Family Therapy/
55 or/30-54

(Target Population)

56 (CHILD or ADOLESCENT).mp.

(Diagnostic categories)

57 anxiety disorders/ or agoraphobia/ or neurocirculatory asthenia/ or ((obsessive or compulsive) adj disorder).mp. or panic disorder/ or phobic disorders/ or stress disorders, traumatic/
58 eating disorders/ or anorexia nervosa/ or bulimia nervosa/ or coprophagia/ or pica/ or (eating adj disorder).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
59 mood disorders/ or affective disorders, psychotic/ or bipolar disorder/ or depressive disorder/ or depression, depressive disorder, major/ or dysthymic disorder/ or (bipolar adj disorder).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
60 somatoform disorders/ or conversion disorder/ or hypochondriasis/ or neurasthenia/
61 "attention deficit and disruptive behavior disorders"/ or attention deficit disorder with hyperactivity/ or conduct disorder/
62 personality disorders/ or antisocial personality disorder/ or borderline personality disorder/ or compulsive personality disorder/ or dependent personality disorder/ or histrionic personality disorder/ or paranoid personality disorder/ or passive-aggressive personality disorder/ or schizoid personality disorder/ or schizotypal personality disorder/
63 child development disorders, pervasive/ or asperger syndrome/ or autistic disorder/ or rett syndrome/ or schizophrenia, childhood/
64 "schizophrenia and disorders with psychotic features"/ or capgras syndrome/ or paranoid disorders/ or psychotic disorders/ or psychoses, substance-induced/ or schizophrenia/

65 substance-related disorders/ or alcohol-related disorders/ or amphetamine-related disorders/ or cocaine-related disorders/ or marijuana abuse/ or opioid-related disorders/ or phencyclidine abuse/ or psychoses, substance-induced/ or substance abuse, intravenous/ or substance withdrawal syndrome/
66 self-injurious behavior/ or self mutilation/ or suicide/ or suicide, attempted/

(Combinations of research method+population+settings+clinical diagnosis)

67 29 and 55 and 56 and 57
68 29 and 55 and 56 and 58
69 29 and 55 and 56 and 59
70 29 and 55 and 56 and 60
71 29 and 55 and 56 and 61
72 29 and 55 and 56 and 62
73 29 and 55 and 56 and 63
74 29 and 55 and 56 and 64
75 29 and 55 and 56 and 65
76 29 and 55 and 56 and 66

Search Strategy: Non-randomised quantitative studies

(Settings of Care)

1 Residence Characteristics/
2 Home Care Services/
3 Outpatients/
4 Ambulatory Care/
5 Residential Treatment/
6 Day Care/
7 Foster Home Care/
8 Health Facilities, Proprietary/ or Skilled Nursing Facilities/ or Assisted Living Facilities/ or Ambulatory Care Facilities/ or Intermediate Care Facilities/ or Residential Facilities/ or Health Facilities/
9 prison$.mp. or Prisons/
10 residential facilities/ or assisted living facilities/ or group homes/ or halfway houses/ or nursing homes/ or orphanages/
11 Child Day Care Centers/ or child day care centres.mp.
12 community$.mp. [mp=title, original title, abstract, name of substance word, subject heading word]
13 alternative$.mp. [mp=title, original title, abstract, name of substance word, subject heading word]
14 (school$ or schools).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
15 exp Substance Abuse Treatment Centers/
16 ((outpatient or home or residential) adj care).tw.
17 ((outpatient or day) adj clinic?).tw.
18 day clinic.tw.
19 early intervention.tw.
20 (outreach adj (treatment or program$ or assertive or community)).tw.
21 (assertive adj (treatment or community)).tw.
22 (mental adj service$).tw. 1
23 (psychiatr$ adj service$).tw.
24 dialectical behavio?r therapy.tw.

25 Family Therapy/
26 or/1-25

(Target Population)

27 (CHILD or ADOLESCENT).mp.

(Diagnostic categories)

28 anxiety disorders/ or agoraphobia/ or neurocirculatory asthenia/ or ((obsessive or compulsive) adj disorder).mp. or panic disorder/ or phobic disorders/ or stress disorders, traumatic/
29 eating disorders/ or anorexia nervosa/ or bulimia nervosa/ or coprophagia/ or pica/ or (eating adj disorder).mp.
30 mood disorders/ or affective disorders, psychotic/ or bipolar disorder/ or depressive disorder/ or depression, depressive disorder, major/ or dysthymic disorder/ or (bipolar adj disorder).mp.
31 somatoform disorders/ or conversion disorder/ or hypochondriasis/ or neurasthenia/
32 "attention deficit and disruptive behavior disorders"/ or attention deficit disorder with hyperactivity/ or conduct disorder/
33 personality disorders/ or antisocial personality disorder/ or borderline personality disorder/ or compulsive personality disorder/ or dependent personality disorder/ or histrionic personality disorder/ or paranoid personality disorder/ or passive-aggressive personality disorder/ or schizoid personality disorder/ or schizotypal personality disorder/
34 child development disorders, pervasive/ or asperger syndrome/ or autistic disorder/ or rett syndrome/ or schizophrenia, childhood/
35 "schizophrenia and disorders with psychotic features"/ or capgras syndrome/ or paranoid disorders/ or psychotic disorders/ or psychoses, substance-induced/ or schizophrenia/
36 substance-related disorders/ or alcohol-related disorders/ or amphetamine-related disorders/ or cocaine-related disorders/ or marijuana abuse/ or opioid-related disorders/ or phencyclidine abuse/ or psychoses, substance-induced/ or substance abuse, intravenous/ or substance withdrawal syndrome/
37 self-injurious behavior/ or self mutilation/ or suicide/ or suicide, attempted/

(Non-randomised methods)
38 "outcome assessment (health care)"/ or treatment outcome/ or "process assessment (health care)"/
39 exp epidemiologic methods/ or exp case-control studies/ or case control.mp. or exp research design/
40 cohort studies.mp. or exp cohort studies/
41 exp program evaluation/
42 follow up studies.mp. or exp follow-up studies/
43 or/38-42

(Combination of Settings+Target Population+Clinical Diagnosis+Research Methods)
44 26 and 27 and 28 and 43
45 26 and 27 and 29 and 43
46 26 and 27 and 30 and 43
47 26 and 27 and 31 and 43
48 26 and 27 and 32 and 43
49 26 and 27 and 33 and 43
50 26 and 27 and 34 and 43
51 26 and 27 and 35 and 43

52 26 and 27 and 36 and 43 53 26 and 27 and 37 and 43

Step Two Search Strategy

Psychiatric AND alternative AND inpatient AND (child OR adolescent OR youth)
Psychiatric AND Day hospital AND (child OR adolescent OR youth)
Psychiatric AND Day clinic AND (child OR adolescent OR youth)
Psychiatric AND Outpatient AND (child OR adolescent OR youth)
Psychiatric AND Partial Hospitalization AND (child OR adolescent OR youth)
Psychiatric AND Residential AND (child OR adolescent OR youth)
Psychiatric AND Community AND (child OR adolescent OR youth)
Psychiatric AND Home AND (child OR adolescent OR youth)

The above searches were repeated replacing 'psychiatric' with the 10 specific disorders from the OVID searches (Psychosis, Eating disorders etc).

Additional searches were undertaken on specific treatment programmes: "Wraparound" and "Treatment Foster Care" using the above search terms and replacing mental disorders and psychiatric with emotional or behavioural.

Step Three Search Strategy

(((home treatment or crisis intervention or managed care or home treatment or "home-based" or treatment foster care or therapeutic group home or outpatient or residential or partial hospitalization or day hospital or day clinic or "alternative to hospitalization" or "alternative to hospitalisation" or "alternative to inpatient" or (alternative and inpatient) or (alternative and outpatient)) and (child or youth or adolescent) and (mental disorders or psychiatric)).mp.) NOT adult

Original OVID search output (RCT + non-RCT)

* Above strategy then repeated. (Mental disorders and psychiatric) replaced by (emotional or behavioural or behavioural), with duplicates removed.

Updating search strategy for Medline (August 2007)

1. ((psychiatric or emotional or behavio?ral or mental or anxiety or eating or mood or personality or psychotic or developmental or eating) adj5 disorder$).mp. [mp=ti, ot, ab, nm, hw]
2. (anorexia nervosa or bulimia or schizophren$ or depress$ or asperger or autism or autistic or substance abuse or suicide). mp. [mp=ti, ot, ab, nm, hw]
3. 1 or 2
4. (alternative and (inpatient or in-patient)).mp. [mp=ti, ot, ab, nm, hw]
5. day.mp. [mp=ti, ot, ab, nm, hw]
6. (outpatient$ or out-patient$).mp. [mp=ti, ot, ab, nm, hw]
7. partial hospital$.mp. [mp=ti, ot, ab, nm, hw]
8. residential.mp. [mp=ti, ot, ab, nm, hw]
9. community$.mp. [mp=ti, ot, ab, nm, hw]
10. home.mp. [mp=ti, ot, ab, nm, hw]
11. wraparound.mp. [mp=ti, ot, ab, nm, hw]
12. treatment foster care.mp. [mp=ti, ot, ab, nm, hw]
13. (multi-systemic or multisystemic).mp. [mp=ti, ot, ab, nm, hw]
14. or/4-13
15. (child$ or adolescen$ or youth$ or teenage$).mp. [mp=ti, ot, ab, nm, hw]
16. randomized controlled trial.pt.
17. controlled clinical trial.pt.
18. exp Randomized Controlled Trials/
19. exp Random Allocation/
20. exp Double-Blind Method/
21. exp single-blind method/
22. or/16-21
23. exp Animals/
24. exp Humans/
25. 24 not 23
26. 22 not 25
27. clinical trial.pt.
28. exp Clinical Trials/
29. (clin$ adj25 trial$).tw.
30. ((singl$ or doubl$ or trebl$ or tripl$) adj25 (blind$ or mask$)).tw.
31. Placebos/
32. placebo$.tw.
33. random$.tw.
34. Research Design/
35. or/27-34
36. 35 not 25
37. comparative study/
38. exp Evaluation Studies/
39. Follow-Up Studies/
40. Prospective Studies/
41. (control$ or prospectiv$ or volunteer$).tw.
42. or/37-41
43. 42 not 25
44. "outcome assessment (health care)"/ or treatment outcome/ or "process assessment (health care)"/
45. exp epidemiologic methods/ or exp case-control studies/ or case control.mp. or exp research design/ [mp=ti, ot, ab, nm, hw]
46. cohort studies.mp. or cohort studies/ [mp=ti, ot, ab, nm, hw]
47. exp program evaluation/
48. follow up studies.mp. or exp follow-up studies/ [mp=ti, ot, ab, nm, hw]
49. or/44-48
50. 26 or 36 or 43 or 49

51. 3 and 14 and 15 and 50

Updating search strategy for PsychInfo (August 2007)

1. outpatient treatment/
2. aftercare/
3. partial hospitalization/
4. exp crisis intervention services/
5. exp schools/
6. day care centers/
7. home care/
8. residential care institutions/ or halfway houses/ or nursing homes/ or group homes/
9. child day care/
10. family therapy/
11. community mental health centers/ or suicide prevention centers/ or psychiatric clinics/ or community facilities/
12. correctional institutions/ or prisons/ or reformatories/
13. prison$.mp.
14. community$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
15. alternative$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
16. ((outpatient or home or residential) adj care).tw.
17. ((outpatient or day) adj clinic$).tw.
18. early intervention.tw.
19. (outreach adj (treatment or program$ or assertive or community)).tw.
20. (assertive adj (outreach or community)).tw.
21. (mental adj service$).tw.
22. (psychiatr$ adj service$).tw.
23. dialectical behavio?r therapy.tw.
24. or/1-23
25. (child or adolescent).mp. [mp=title, abstract, heading word, table of contents, key concepts]
26. exp anxiety disorders/
27. exp eating disorders/
28. exp affective disorders/
29. exp somatoform disorders/
30. exp attention deficit disorder/
31. exp personality disorders/
32. exp pervasive developmental disorders/
33. exp drug abuse/
34. suicide/ or attempted suicide/
35. self inflicted wounds/ or self mutilation/
36. exp psychosis/
37. or/26-36
38. 24 and 25 and 37
39. ((psychiatric or behavio?ral or emotional or mental or anxiety or eating or mood or personality or psychotic or developmental or eating) adj5 disorder$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
40. (anorexia nervosa or bulimia or schizophren$ or depress$ or asperger or autism or autistic or substance abuse or suicide).mp. [mp=title, abstract, heading word, table of contents, key concepts]
41. 39 or 40
42. (alternative and (inpatient or in-patient)).mp. [mp=title, abstract, heading word, table of contents, key concepts]
43. day.mp. [mp=title, abstract, heading word, table of contents, key concepts]

44. (outpatient$ or out-patient$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
45. partial hospital$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
46. residential.mp. [mp=title, abstract, heading word, table of contents, key concepts]
47. community$.mp. [mp=title, abstract, heading word, table of contents, key concepts]
48. home.mp. [mp=title, abstract, heading word, table of contents, key concepts]
49. wraparound.mp. [mp=title, abstract, heading word, table of contents, key concepts]
50. treatment foster care.mp. [mp=title, abstract, heading word, table of contents, key concepts]
51. (multi-systemic or multisystemic).mp. [mp=title, abstract, heading word, table of contents, key concepts]
52. or/42-51
53. (child or adolescen$ or youth$ or teenage$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
54. 41 and 52 and 53
55. rct.tw.
56. random$.tw.
57. (clinical trial$ or clinical stud$).tw.
58. or/55-57
59. (cohort stud$ or cohort analysis).tw.
60. case control stud$.tw.
61. cross sectional stud$.tw.
62. follow up stud$.tw.
63. observational stud$.tw.
64. longitudinal stud$.tw.
65. prospective stud$.tw.
66. retrospective stud$.tw.
67. or/59-66
68. intervention.tw.
69. exp experimental design/ or experimental methods/ or quantitative methods/
70. 58 or 67 or 68 or 69
71. 38 and 70
72. 54 and 70

Appendix 2

Description of the quality criteria

Concealment of allocation in randomised controlled trials: scored as DONE if the unit of allocation was by institution, team or professional and any random process is described explicitly, e.g. the use of random number tables or coin flips OR the unit of allocation was by patient or episode of care and there was some form of centralised randomisation scheme, an on-site computer system or sealed opaque envelopes were used.

Follow-up of professionals: Scored as DONE if outcome measures were obtained for 80-100% of subjects randomised.

Follow-up of patients or episodes of care: Scored as DONE if outcome measures were obtained for 80-100% of subjects randomised or for patients who entered the trial or if there is an objective data collection system.

Blinded assessment of primary outcome(s): Scored as DONE if the authors state explicitly that the primary outcome variables were assessed blindly OR the outcome variables are objective, such as hospitalisation rates.

Baseline measurement: Scored as DONE if performance or patient outcomes were measured prior to the intervention, and no substantial differences were present across study groups;

Reliable primary outcome measure(s): Scored as DONE if two or more raters have at least 90% agreement or kappa greater than or equal to 0.8 OR the outcome is obtained from some automated system e.g. length of hospital stay, drug levels as assessed by a standardised test;

Protection against contamination: Scored as DONE if allocation was by community, institution or practice and it is unlikely that the control received the intervention.

Source: Cochrane Effective Practice and Organisation of Care Review Group (2002) The Data Collection Checklist. www.epoc.uottawa.ca/checklist2002.doc

Additional quality assessment criteria

Standardised measurement: Scored as DONE if tests were administered to research participants that have proven validity, reliability as well as specific scoring and administration procedures.

***Diagnosis described:** Scored as DONE if clinical diagnosis of research population is clearly defined.

***Study prospective/ retrospective:** Marked as PROSPECTIVE where research population are identified and then followed forward in time. Marked as RETROSPECTIVE where research population are followed backwards in time.

***Multi-centred / Single-centred:** Marked as MULTI-CENTRED where research population are treated at more than one clinical setting. Marked as SINGLE-CENTRED where research population are all treated at one clinical setting.

* Reported for pre-post test studies with a comparison group, case series and uncontrolled studies only.

Quality assessment

Reference	Quality Criteria
Randomised Controlled Trials	
Rowland M, Halliday-Boykins C, Henggeler S, Cunningham P, Lee T, Kruesi M & Shapiro S (2005) A randomised trial of multisystemic therapy with Hawaii's Felix class youth. Journal of Emotional and Behavioural Disorders 13: 13-23. Intervention: Multisystemic therapy delivered at home/ outpatients vs usual community services Study population: Emotional/ Behavioural Disorders – 94% of youth met DSM-IV criteria with mean 1.81 (conduct disorder (39%), bipolar disorder (32%), attention-deficit disorder (23%), dysthymia (16%), major depression (13%) and post-traumatic stress disorder (10%). N=55 (MST=26, Control=29) Age ranges=9 to 17 years (mean 14.5 years)	Concealment of allocation/ method of allocation groups NOT CLEAR Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (56.36% of the randomised sample followed up at 6 months) Blinded assessment of primary outcome(s) DONE (Research assistants were not supposed to know treatment arm of sample/ Standardised measures used). Standardised measurement DONE Baseline assessment NOT DONE (Baseline differences between groups with MST youth heavier self-reported drug users and more involved in minor delinquency and index delinquency). Reliable primary outcome measure(s) DONE (Standardised psychometric measures/ objective data) Protection against contamination DONE
Henggeler S, Rowland M, Randall J, Ward D, Pickrel S, Cunningham P, Miller S, Edwards J et al (1999) Home-based multisystemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis: clinical outcomes. JAACAP 38: 1331-1339. Intervention: Multisystemic therapy at home vs Inpatient Care Setting Study population: Psychosis/ Suicide N=113 (57 MST, 56 Control) Age ranges=Mean 13 years **<u>Supplementary reports</u>** *Henggeler S, Rowland S, Pickrel S, Miller S, Cunningham P, Santos A, Schoenwald S, Randall J & Edwards J (1997) Investigating family-based alternatives to institution-based mental health services for youth: lessons learned from the pilot study of a*	Concealment of allocation/ method of allocation groups NOT CLEAR (by sealed envelope) Follow-up of professionals DONE (100% follow-up of teachers after initial 3 subjects drop out) Follow-up of patients or episodes of care DONE (100% follow-up of families after initial 3 subjects drop out) Blinded assessment of primary outcome(s) DONE (objective measures) Standardised measurement DONE Baseline assessment DONE Reliable primary outcome measure(s) DONE (Standardised psychometric

randomised, controlled trial. Journal of Clinical Child Psychology 26.3: 226-233. *Schoenwald et al (2000) Multisystemic therapy versus hospitalization for crisis stabilisation of youth: placement outcomes 4 months post-referral. Mental Health Services Research 2.1: 3-12* *Sheidow et al (2004) Treatment costs for youths receiving multisystemic therapy or hospitalisation after a psychiatric crisis. Psychiatric Services 55.5: 548-554.* *Henggeler et al (2003) One year follow-up of multisystemic therapy as an alternative to the hospitalisation of youths in psychiatric crisis. JAACAP 42.5: 543-551.*	measures + objective outcomes such as hospitalisation rates) Protection against contamination DONE
Evans M, Boothroyd R, Armstrong M, Greenbaum P, Brown E & Kuppinger A (2003) An experimental study of the effectiveness of intensive in-home crisis services for children and their families: program outcomes. Journal of Emotional and Behavioural Disorders 11.2: 92-102. Intervention: Homebuilders vs Homebuilders+ vs Case Management Study population: Emotional/ Behavioural Disorders – 35.8% disruptive disorders, 19.8% adjustment disorders, 14.6% mood disorders, 11.8% psychotic disorders, 10.4% anxiety disorders, 7.6% other diagnosis. N=296 Age ranges=12.3 years (SD 3.6) **<u>Supplementary reports:</u>** *Evans et al (2001) Outcomes associated with clinical profiles of children in psychiatric crisis enrolled in intensive, in-home interventions. Mental Health Services Research 3.1: 35-44.* *Evans M (1997) Child outcomes of a field experiment on intensive in-home interventions for children with psychiatric crisis. Crisis Services & Residential Care 9th Annual Conference Proceedings, Research & Training Centre for Children's Mental Health: Florida University.* *Evans M et al (1997) Preliminary family outcomes of a field experiment on intensive in-home interventions for children in psychiatric crisis. Crisis Services & Residential Care 9th Annual Conference Proceedings, Research & Training Centre for Children's Mental Health: Florida University.* *Evans M, Boothroyd R & Armstrong M (1997) Development and implementation of*	Concealment of allocation/ method of allocation groups NOT CLEAR Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (80.40% follow-up (238/296)) Blinded assessment of primary outcome(s) DONE (Standardised measures employed) Standardised measurement DONE Baseline assessment DONE Reliable primary outcome measure(s) DONE (Objective measures) Protection against contamination NOT CLEAR (authors did report 14 children were enrolled twice. Allocation outcomes for these children are not described so unclear what happened if randomly assigned place was unavailable).

an experimental study of the effectiveness of intensive in-home crisis services for children and their families. Journal of Emotional & Behavioural Disorders 5.1: 93-105	
Mattejat F, Hirt B, Wilken J, Schmidt M & Remschmidt H (2001) Efficacy of inpatient and home treatment in psychiatrically disturbed children and adolescents. European Child & Adolescent Psychiatry 10: 71-79. Intervention: Home treatment vs Inpatient Care Study population: Emotional & Behavioural Disorders – 11% neurosis, 17% enuresis/ encopresis, 17% anorexia or other eating disorders, 19% conduct disorders, 27% emotional disorders, 9% ADHD. N=68 Age ranges=mean 15.6 months (SD 3 years 3 months) at follow up. Mean at start of treatment was 11 years 9 months. **<u>Supplementary reports:</u>** *Remschmidt H et al (1988) Therapy evaluation in child and adolescent psychiatry: a comparison of inpatient, day hospital and home treatment. Z Kinder Jugend Psychiatrie 16.3: 124-134.*	Concealment of allocation/ method of allocation groups NOT CLEAR Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (74% of the original randomised sample are followed up) Blinded assessment of primary outcome(s) DONE (Raters did not know treatment modality received/ Standardised measures used). Standardised measurement DONE Baseline assessment DONE (Remschmidt baseline measures) Reliable primary outcome measure(s) DONE (Standardised psychometric measures used) Protection against contamination DONE
Winsberg B, Bialer I, Bupietz S, Botti E & Balka E (1980) Home vs hospital care of children with behaviour disorders. Archives of General Psychiatry 37: 413-418. Intervention: Home care vs Inpatient care Study population: Emotional and Behavioural Disorders (externalising) – hyperkinetic disorder, unsocialised aggressive reaction of childhood, childhood neurosis with behaviour disorder, unsocialised aggressive reaction with psychoneurosis. N=49 Age ranges=5 year 3 months to 13 years 2 months	Concealment of allocation/ method of allocation groups NOT CLEAR Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (Hospitalisation rates reported for 100% sample) Blinded assessment of primary outcome(s) DONE (Objective measures) Standardised measurement NOT DONE (not reliable data) Baseline assessment DONE (not reliable data) Reliable primary outcome measure(s) NOT DONE (This is unreliable data as obtained by two different professionals groups) Protection against contamination DONE
Silberstein R, Dalack J, Cooper A & Island S (1968) Avoiding	Concealment of allocation/ method of allocation groups

institutionalisation of psychotic children. Archives of General Psychiatry 19: 17-21. Intervention: Parental counselling + child medication (4 combinations from counselling+drugs to placebo drugs only) Study population: Emotional and Behavioural Disorders – acting out at school/ home, poor peer relations, hyperactivity, learning disturbance, peculiar mental activity, unusual gestures, truancy, somatic symptoms and special symptoms such as soiling, suicide ideation and homicidal threats. N=48 Age ranges=mean 10 years 4 months (range 4 years 2 months to 17 years)	NOT CLEAR Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (Hospitalisation rates obtained for 100% of children) Blinded assessment of primary outcome(s) DONE (Objective hospitalisation rates reported) Standardised measurement DONE Baseline assessment DONE Reliable primary outcome measure(s) DONE (Objective measures of outcome) Protection against contamination DONE
Byford S, Barrett B, Roberts C, Clark A, Edwards V, Harrington R, Smethurst N & Gowers S (In Press) Economic evaluation of a randomised controlled treatment trial for adolescent anorexia nervosa – the TOuCAN trial. Unpublished report. Intervention: Specialist outpatient care vs Inpatient care vs Generic outpatient care. Study population: Anorexia Nervosa N=167 Age ranges=12 to 18 years	Concealment of allocation/ method of allocation groups DONE (randomised by independent statistical team) Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (81% follow-up of patients on the Morgan-Russell Average Outcome Scale at 2 year follow-up. However, 99% follow-up of patients for Child & Adolescent Service Use Schedule based on their hospital records). Blinded assessment of primary outcome(s) DONE (Researchers were blind to treatment allocation when performing assessments at baseline, one and two year follow-up. Objective measures of outcome were used). Standardised measurement NOT DONE Baseline assessment DONE Reliable primary outcome measure(s) DONE (Objective measures of outcome) Protection against contamination DONE

Non-randomised studies with comparison group	
Wilmshurt L (2002) Treatment programs for youth with emotional and behavioural disorders: an outcome study of two alternative approaches. Mental Health Services Research 4.2: 85-96. Intervention: Family Preservation Services vs 5 day residential care programme. Study Population: Emotional and Behavioural Disorders – no clinician diagnostic data given. N=82 FP, 34 5DR Age ranges=mean 11.12 (SD 1.76) for FP, mean 10.35 (SD 2.28) for 5DR.	Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (79.27% of sample followed-up) Blinded assessment of primary outcome(s) DONE (objective measures) Standardised measurement DONE Baseline measurement DONE Reliable primary outcome measure(s) DONE (Standardised psychometric tests) Protection against contamination NOT DONE (If residential care place unavailable, community services were given to youth)
Schwartz I, Auclaire P & Harris L (1991) Family preservation services as an alternative to the out-of-home placement of adolescents: the Hennepin County experience. Wells K & Biegal D (eds) Family Preservation Services (SAGE: NEWBURY PARK). Intervention: Family Preservation Services vs Out-of-home placement Study Population: Emotional and behavioural Disorders at risk of out-of-home placement. No clinical diagnosis provided. N=58 treatment, 58 control Age ranges=45% <14 years	Follow-up of professionals DONE (Structure interview with social workers although not described in detail within study report - % follow-up of social workers uncertain) Follow-up of patients or episodes of care DONE (100% follow-up) Blinded assessment of primary outcome(s) DONE (Rates of placement) Standardised measurement NOT DONE Baseline measurement DONE (Limited to presenting problem & background info on the child) Reliable primary outcome measure(s) YES (Objective placement data from case files) Protection against contamination DONE (but long term protection unlikely since CWD implemented policy of home-based service development during study thus increasingly likelihood of at risk children being offered such services over time).
Sherman J, Barker P, Lorimer P, Swinson R & Factor D (1988)	Follow-up of professionals NOT DONE

Treatment of autistic children: relative effectiveness of residential, out-patient and home-based interventions. Child psychiatry and human development 19.2: 109-125. Intervention: Home vs Outpatient vs Residential Care Study Population: Autism N=15 Age ranges=5 years 2 months (2 years 7 months to 7 years)	Follow-up of patients or episodes of care DONE (100% follow-up) Blinded assessment of primary outcome(s) DONE (Standardised tests) Standardised measurement NOT DONE Baseline measurement DONE Reliable primary outcome measure(s) YES (Standardised psychometric measures/ objective data collected) Protection against contamination NOT CLEAR (Small sample – unclear when some of the home-treatment children went into residential care)
Schmidt M, Lay B, Gopel C, Naab S & Blanz B (2006) Home treatment for children and adolescents with psychiatric disorders. European Child & Adolescent Psychiatry 15: 265-276. Intervention: Home treatment vs Inpatient Care Study Population: Emotional and behavioural disorders – hyperkinetic disorder (48.6% - home, 45.7% inpatient), conduct disorders (15.7% home, 17.1% inpatient) and mixed disorder of conduct+emotions (7.1% home, 5.7% inpatient). 28.6% of home and 31.4% of inpatient children had OCD, emotional disorder of childhood, aspergers syndrome, phobic anxiety, nonorganic encopresis, somatisation disorder or personality disorder. Comorbid developmental disorder affected 14.3% of home group and 20% of inpatients. N=70 home treatment, 35 Inpatient Age ranges= mean home treatment 10.9 years (SD 3.0), mean inpatient 11.3 years (SD 3.1)	Follow-up of professionals DONE (Therapists and external examiners rated children's progress) Follow-up of patients or episodes of care DONE (84.76% (59/70 home treatment & 30/35 inpatient group at 12 month follow-up)) Blinded assessment of primary outcome(s) DONE (Standardised measures + expert raters were blind to treatment arm) Standardised measurement DONE Baseline measurement DONE Reliable primary outcome measure(s) DONE (Standardised psychometric measures) Protection against contamination DONE
Greenfield B, Larson C, Hechtman L, Rousseau C & Platt R (2002) A rapid response outpatient model for reducing hospitalisation rates among suicidal adolescents. Psychiatric Services 53.12: 1574-1579. Intervention: Rapid-response outpatient clinic vs. Standard Outpatient Care Study Population: Suicidal Adolescents	Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (100% follow-up of hospital use at 2 months and 6 months) Blinded assessment of primary outcome(s) DONE (Hospital rates – otherwise not described)

N=344 Age ranges=12 to 17 years (treatment mean=14 years (SD 1.59), control mean=14 years (SD 1.46))	Standardised measurement DONE Baseline measurement DONE Reliable primary outcome measure(s) DONE (Standardised Psychometric measures) Protection against contamination DONE (After initial ER treatment decisions had been made, there is no evidence that the rapid-response patients got the standard service)
Cornwall A & Blood L (1998) Inpatient versus day treatment for substance abusing adolescents. Journal of Nervous and Mental Disease 186: 580-582. Intervention: Inpatient care vs. day treatment Study Population: Substance abuse. N=79 Inpatient, 66 Day patients Age ranges=mean 16.5 years	Follow-up of professionals NOT DONE Follow-up of patients or episodes of care DONE (106/135 (73.10%) of sample followed-up) Blinded assessment of primary outcome(s) DONE (Standardised measures) Standardised measurement DONE (85/135 youth (62.96%) completed tests) Baseline measurement DONE Reliable primary outcome measure(s) DONE Protection against contamination DONE
Pre-post test studies with comparison group	
Pecora P, Fraser M, Bennett R & Haapala D (1991) Placement rates of children and families served by intensive family preservation services program. (eds) Fraser M, Pecora P & Haapala D 'Families in Crisis' Aldine: New York. N=446 families (intensive family preservation services) vs 38 families (case-overflow wait-list comparison group) Age ranges=Mean 12.5 years (SD 4 years) Study Population= Emotional-behavioural disorders at risk of out-of-home placement. Design type=Pre/post test design with wait-list comparison group	Baseline measure taken? Was there baseline comparability? DONE Is the study prospective or retrospective? Prospective, not clear if consecutive. Blinded assessment of primary outcome? DONE (objective measures). Reliable primary outcome measure(s): DONE Follow-up of patients? If yes, length of follow-up of patients? DONE, 100% at discharge and 58.97% at 12 month follow-up. Only a sub-set of the original sample n=446 had started treatment early enough to warrant 12 month follow-up. Thus, 70% of eligible Utah families and

	95% of eligible Washington families were followed up at 12 months. In the Utah comparison group, 26/38 families (68.42%) had 12 month follow-up for placement rates. Follow-up of professionals? If yes, length of follow-up of professionals? DONE. Family therapists reported goal attainment at 1 year follow-up. 100% follow-up.
Blumberg S (2002) Crisis intervention program: an alternative to inpatient psychiatric treatment for children. Mental Health Services Research 4.1: 1-6. Intervention: Intensive Case Management (Hospital Diversion) N=465 referrals to crisis intervention programme from 1996 until 1998 Age ranges=Up to 12 years of age eligible Study Population= Emotional-Behavioural Disorders. Presenting problems involve significant risk of harm to self or others through fire-setting, severe aggression, dangerous runaway or suicide ideation. Research Design=Pre/ post test with historical comparison group	Baseline measure taken? Was there baseline comparability? DONE. Same clinical population examined over two year periods, although no statistical comparability analysis was done. Is the study prospective or retrospective? Prospective Blinded assessment of primary outcome? DONE (objective measures) Reliable primary outcome measure(s): DONE Follow-up of patients? If yes, length of follow-up of patients? DONE. Hospitalisation rates were obtained for 100% of the children. Hospitalisation rates were monitored during the two years after implementation of crisis intervention programme (1996 – 1998), and compared to two years before implementation of crisis intervention programme (1993 – 1995). Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE
Greenfield B, Hechtman L & Tremblay C (1995) Short-term efficacy of interventions by a youth crisis team. Canadian Journal of Psychiatry 40: 320-324. Intervention: Crisis case management (specialist outpatient clinic). N=568 (treatment group) vs 412 (historical control group)	Baseline measure taken? Was there baseline comparability? DONE. Same clinical population examined over two year periods, although no statistical comparability analysis was done. Is the study prospective or retrospective? Prospective

Age ranges=13 to 17 years Study Population=Emotional-Behavioural Disorders – mostly suicidal. Design type=Pre/ post test with historical comparison group	Blinded assessment of primary outcome? DONE (objective measures) Reliable primary outcome measure(s): DONE Follow-up of patients? If yes, length of follow-up of patients? DONE. Hospitalisation rates were obtained for 100% of youth before crisis intervention programme and after crisis intervention programme was implemented. The follow-up duration for the treatment group was 4 years. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE
Evans M, Huz S, McNulty T & Banks S (1996) Child, family and system outcomes of intensive care management in New York State. Psychiatric Quarterly 67.4: 273-286. Intervention: Intensive Case Management (Hospital Diversion) N is a computer database of mental health records Phase 2 (evaluation of psychiatric symptoms) n=199 Phase 3 (hospital outcomes)=917 Age ranges= Mean age 12 years, ranging 4 to 18 years Study Population= Emotional-behavioural disorders, with 45% of sample having diagnosis of a disruptive behaviour disorder such as attention deficit disorder, conduct disorder or oppositional defiant disorder. Research Design=Pre/ post test design with historical comparison group **<u>Supplementary report</u>** *Evans et al (1994) Initial hospitalisation and community tenure outcomes of intensive case management for children and youth with serious emotional disturbance. Journal of child and family studies 3.2: 225-234.*	Baseline measure taken? Was there baseline comparability? The same baseline measures were taken for both groups but there is no statistical comparison for comparability. 'After' cases were obtained by a process of random selection that were matched to 'before' cases. Is the study prospective or retrospective? Prospective, not clear if consecutive. Blinded assessment of primary outcome? DONE (objective measures) Reliable primary outcome measure(s): DONE Follow-up of patients? If yes, length of follow-up of patients? DONE. Follow-up at discharge (mean treatment time for intensive case management children was 421 days (SD=320 days). The study performed a longitudinal detailed evaluation of 30% of children enrolled in system since 1988 (n=199). Data are reported on 162/199 (81.41%) of children for psychiatric symptoms at discharge (or 3 year follow-up). Follow-up of professionals? If yes,

	length of follow-up of professionals? DONE for Phase 2. 100% case managers reported on patient unmet need in a survey at baseline and discharge/ 3 year follow-up.
Uncontrolled studies/ case series	
Barfield S, Holmes C, Barket A, Chamberlain R & Corrigan S (2005) Home and community-based services: mental health waiver for children and youth with severe emotional disturbance. University of Kansas: Kansas Intervention: Hospital diversion policy N=211 Age ranges=mean 11.94 years (SD 3.56) Study Population=Emotional/ Behavioural Disorders - ADD was identified in 118 (55.9%), mood disorders 91 (43.1%) and behaviour disorders 88 (41.7%). Research Method=Uncontrolled pre-post test design	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? PROSPECTIVE. All records were obtained using a randomly selected systematic sampling procedure. Multi-centred or single-centre study? SINGLE-CENTRED if waiver policy is regarded as one regional provider. Blinded assessment of outcome? DONE. Objective measures taken. Follow-up of patients? DONE. Length of follow-up of patients? DONE. One year follow-up attempted (but several centres did not have follow-up data available due to computer problems) Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Blackman M, Pitcher S & Rauch F (1986) A preliminary outcome study of a community group treatment programme for emotionally disturbed adolescents. Canadian Journal of Psychiatry 31: 112-118. Intervention: Day hospital programme N=31 Age ranges=mean 13.7 years Study Population=Emotional/ Behavioural Disorders - adjustment disorders (365), conduct disorders (29%), affective disorders (13%), psychoses (7%), anxiety (10%) and other developmental disorders (7%). Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Stated as prospective and consecutive. Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE. Objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, until discharge (4 to 10 months later). Only 31/ 46 youth had sufficient data for analysis. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.

Blackman M, Eustace J & Chowdhury T (1991) Adolescent residential treatment: a one to three year follow-up. Canadian Journal of Psychiatry 36: 472-479. Intervention=Residential care unit N=40 Age ranges=12.1 years to 17.8 years (mean 14.6) Study Population=Emotional/ behavioural disorders - typical disorders at admission were affective disorders, psychotic disorders, eating disorders, behavioural disorders. Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Prospective (unclear if consecutive) Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measure. Follow-up of patients? If yes, length of follow-up of patients? DONE until discharge at mean 4.9 months and then follow-up at 1 to 3 years. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Bruns E, Burchard J & Yoe J (1995) Evaluating the Vermont System of Care: outcomes associated with community-based wraparound services. Journal of Child and Family Studies 4.3: 321-339. Intervention: Community wraparound services N=27 Age ranges=8 to 18 years (mean 13.6 years) Study Population=Emotional Behavioural Disorders Research Method=Uncontrolled pre/post test design	Is the diagnosis described? NOT DONE. Is the study prospective or retrospective? Prospective but not consecutive Multi-centred or single-centre study? Single wraparound coordinating centre Blinded assessment of outcome? DONE, objective measures Follow-up of patients? If yes, length of follow-up of patients? DONE up to 1 year Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE
Burns B, Thompson J & Goldman H (1993) Initial treatment decisions by level of care for youth in the Champus Tidewater demonstration. Administration and Policy in Mental Health 20.4: 231-246. Intervention: Case Management:	* DESCRIPTIVE STUDY *

Outpatient care vs Partial hospitalisation vs Residential care vs Inpatient Care Study population: Emotional Behavioural Disorders N=1966 from year 1, 2298 from year 2, 1860 from first 6 months of year 3. Age group: 0 to 17 years Research Method: Descriptive	
Clarke R, Schaefer M, Burchard J & Welkowitz J (1992) Wrapping community-based mental health services around children with a severe behavioural disorder: an evaluation of project wraparound. Journal of Child and Family studies 1.3: 241-261. Intervention=Community wraparound services N=19 families (28 children) Age ranges=5 to 18 years (mean 11.9 years) Study Population=Emotional Behavioural Disorders Research Method=Uncontrolled pre/post test	Is the diagnosis described? Yes (diagnosis described). Is the study prospective or retrospective? Prospective (not consecutive). Multi-centred or single-centre study? Single-centre (Wraparound coordinating centre). Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, 3 months, 6 months and 12 months post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, teachers and clinicians reported on the children during the school year.
Duchnowski A, Swisher-Hall K, Kutash K & Friedman R (2004) The alternatives to residential care study: 12 month outcomes. In Epstein M, Kutash K, Duchowski A (eds) Outcomes for children with emotional and behavioural disorders and their families: program and evaluation best practices. Pro-Ed: Austin, TX. Intervention=5 intensive community services N=144 Age ranges=6 to 18 years (mean 14.1 years, SD 3.1) Study Population=Emotional;/ Behavioural Disorders - 67% of youth had previous residential treatment on average 4 times, and 61% had previous contact with law enforcement/ juvenile justice. Foster placements had been common for these youth and many received welfare	Is the diagnosis described? YES (Diagnosis described) Is the study prospective or retrospective? Prospective not consecutive. Multi-centred or single-centre study? Single-centred. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE at 6 and 12 months post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.

assistance. Of the 144 youth, 69% had previous history of abuse/ neglect, 55% removed from home an average of 2.1 times with the first event happening at mean 8.5 years). Research Method=Uncontrolled pre/post test design	
Eber L, Osuch R & Redditt C (1996) School-based applications of the wraparound process: early results on service provision and student outcomes. Journal of Child and Family Studies 5.1: 83-99. Intervention: Community wraparound services N=38 Age ranges=Not stated Study Population=Severe emotional disturbance Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described). Is the study prospective or retrospective? Prospective, not clear if consecutive. Multi-centred or single-centre study? Single coordinating centre Blinded assessment of outcome? DONE, objective. Follow-up of patients? If yes, length of follow-up of patients? DONE at 1 year follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, 1 year follow-up (Teacher version of Child Behaviour Checklist).
Erkolahti R, Lahtinan E & Ilonen T (2004) A home-treatment system in child and adolescent psychiatry. Clinical Child Psychology and Psychiatry 9.3: 427-436. Intervention: Home treatment N=212 (home treatment patients) Age ranges=3 to 13 years (mean age 9.1 years) Study Population=Emotional-Behavioural Disorders - Affective disorders (31%) and developmental/ organic/ conduct disorders (18%). Psychosocial problems and functional disorders each affected 10% of patients. Research Method=Descriptive	* DESCRIPTIVE STUDY *
Fabry B, Reitz A & Luster W (2002)	

Community treatment of extremely troublesome youth with dual mental health/ mental retardation diagnoses: a data based case study. Education and Treatment of Children 25.3: 339-355. Intervention: Community care N=18 Age ranges=4 to 17 years (median 12 years) Study Population=Emotional Behavioural Disorders with mental retardation - diagnosis at admission included attention deficit, autism, bipolar, schizoaffective & trichotillomania. Research Method=Case series	Is the diagnosis described? DONE (diagnosis described). Is the study prospective or retrospective? Prospective but not consecutive. Multi-centred or single-centre study? Single coordinating centre. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE (appears to be 3 years). Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Gabel S, Finn M & Ahmad A (1988) Day treatment outcome for severely disturbed children. Journal of the American Academy of Child and Adolescent Psychiatry 28.4: 479-482. Intervention: Day hospital programme N=52 Age ranges=4 to 12 years Study Population=Emotional/ Behavioural Disorders - Overt behaviour disorders such as impulsivity, conduct disturbance, hyperactivity etc. Child abuse and maltreatment, family disruption, family violence and social service involvement were common. Research Method=Case series	Is the diagnosis described? DONE (diagnosis described). Is the study prospective or retrospective? Retrospective. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective outcome (out-of-home placement). Follow-up of patients? If yes, length of follow-up of patients? DONE at discharge. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Gillig P (2004) An adolescent crisis service in a rural area. Psychiatric Services 55.12: 1363-1365. Intervention: Crisis intervention service N=48 Age ranges=12 to 16 years (mode 16.5 years) Study Population=Suicide Research Method=Case series	Is the diagnosis described? Yes (diagnosis described) Is the study prospective or retrospective? Retrospective Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measure Follow-up of patients? If yes, length

	of follow-up of patients? DONE, up to 6 months. Follow-up of professionals? If yes, length of follow-up of professionals? Social worker completed crisis triage scale up to 24 hours after the crisis incident.
Ginsberg S (1987) Adolescent day hospital: a cost-effective treatment alternative. International Journal of Partial Hospitalization 4.2: 167-173. Intervention: Day hospital programme N=Over 70 but exact figure not stated. Age ranges=Not clear Study Population=Emotional and behavioural disorders Research Method=Descriptive	* DESCRIPTIVE STUDY *
Gopel C, Schmidt M, Blanz B & Lay B (2000) Clinical and medio-legal aspects of home-based care by nurses as an alternative for inpatient treatment in child and adolescent psychiatry. Medical Law 19:327-334. Intervention: Home treatment N=42 Age ranges=6-16 years, mean age=11.4 yrs (SD 3.1) Study Population=Social functioning disorders - The distribution of diagnosis of home treated children is phobic anxiety disorder, OCD, eating disorder, aspergers syndrome, hyperkinetic disorder, conduct disorder, mixed conduct/ emotional disorder & encopresis. Research Method=Uncontrolled pre/post test design (inpatient comparator group poorly described) **<u>Supplementary report</u>** *Gopel C, Schmidt M, Blanz B & Rettig B (1996) Home treatment of children with hyperkinetic disorders. Z Kinder-Jugendpsychiat 24: 192-202.*	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Prospective and consecutive Multi-centred or single-centre study? Single centre coordinating home treatment. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, at discharge (mean 3.5 months) and 1 year follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, therapists rated patients on the CGAS and Mannheim Parent Interview at discharge (mean 3.5 months).
Granello D, Granello P & Lee F (2000) Measuring treatment outcome in a child and adolescent partial hospitalisation program. Administration and policy in mental health 27.6: 409-422.	Is the diagnosis described? DONE (Diagnosis described) Is the study prospective or retrospective? Prospective (not stated consecutive)

Intervention: Partial hospitalisation programme N=169 Age ranges=4 to 18 years (mean 11.45 years (SD 3.71)) Study Population=Emotional/ Behavioural Disorders - majority of individuals had a diagnosis of depression, anxiety, post-traumatic stress disorder, conduct disorder or a psychotic disorder. Research Method=Uncontrolled pre/post test design	Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measure. Follow-up of patients? If yes, length of follow-up of patients? DONE, follow-up to discharge (after 20 days partial hospitalisation treatment). Follow-up of professionals? If yes, length of follow-up of professionals? DONE, social worker sometimes completed checklist instead of a parent within same time frame. % social worker not stated.
Grizenko and Sayegh (1990) Evaluation of the effectiveness of a psychodynamically day treatment program for children with behaviour problems: a pilot study. Canadian Journal Psychiatry 35: 519-525. Intervention: Day hospital programme N=23 Age ranges=6 to 12 years Study Population=Emotional/ Behavioural Disorders - 17 of the children had a diagnosis of oppositional defiant disorder, three had conduct disorders and three had depression with obsessive-compulsive disorder or somatisation disorder. Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described). Is the study prospective or retrospective? Prospective (unclear if prospective). Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective. Follow-up of patients? If yes, length of follow-up of patients? DONE, until discharge at a mean of 7 months post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, teachers and therapists completed CBCL at discharge (mean 7 months post-admission)
Grizenko N (1997) Outcome of multimodal day treatment for children with severe behaviour problems. JAACAP 36.7: 989-997. Intervention: Day hospital programme N=33 Age ranges=5 to 12 years (mean at follow-up = 13 years (SD 2 years), range 10 to 16 years) Study Population=Emotional/ Behavioural Disorders.	Is the diagnosis described? DONE (diagnosis described) Is the study design prospective or retrospective? Prospective, unclear if consecutive. Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective

Research Method=Uncontrolled pre/post test design	Follow-up of patients? If yes, length of follow-up of patients? DONE, at discharge (mean 6.1 months) and 5 years post-discharge. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Grizenko N, Sayegh L and Papineau D (1994) Predicting outcome in a multimodal treatment program for children with severe behaviour problem. Canadian Journal of Psychiatry 39: 557-562. Intervention: Day hospital programme N=63 Age ranges=5 yrs to 13 yrs (mean 9 years) Study Population=externalising behavioural disorders - the primary diagnosis of children consisted of oppositional defiant disorder (65%), ADHD (24%), adjustment disorder with disturbance of conduct (5%) and conduct disorder (5%). Research Method=Uncontrolled pre/post test design.	Is the diagnosis described? DONE(diagnosis described) Is the study prospective or retrospective? Prospective (not clear if prospective) Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measures Follow-up of patients? If yes, length of follow-up of patients? DONE, until discharge at mean 5.5 months. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Gutstein S, Rudd M, Graham J & Rayha L (1988) Systemic crisis intervention as a response to adolescent crises: an outcome study. Family Process: 201-210. Intervention= Systemic Crisis Intervention Programme (Outpatients) N=90 Age ranges=7 to 19 years, mean 14.3 years Study Population=Suicide Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Yes with consecutive enrolment (but only cases with 12 month follow-up data were analysed) Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measure Follow-up of patients? If yes, length of follow-up of patients? DONE at 3, 6 and 12 to 18 months follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE
Gutstein S & Rudd M (1990) An	

outpatient treatment alternative for suicidal youth. Journal of Adolescence 13: 265-277. Intervention: Systemic Crisis Intervention Programme (Outpatients) N=47 Age ranges=7 to 19 years, mean 14.4 years Study Population=Suicide Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Prospective, not consecutive. Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measures Follow-up of patients? If yes, length of follow-up of patients? DONE, follow-up at 3 months, 6 months and 12/18 months. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE
Huestis R and Ryland C (1990) Outcome after partial hospital treatment of severely disturbed adolescents. International Journal of Partial Hospitalisation 6.2: 139-153. Intervention: Partial hospitalisation programme N=50 Age ranges=13 to 18 years (median 16 years) Study Population=Emotional/ Behavioural Disorders - Approximately two thirds had a personality disorder many described as borderline personality disorder. 6 had neurotic disorder and 11 had a psychotic disorder. Research Method=Uncontrolled post-test design	Is the diagnosis described? DONE Is the study prospective or retrospective? Prospective and claimed to be consecutive (but only 50/77 consecutive referrals consented to study) Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measures. Clinical interview with parents graded by independent reviewers. Follow-up of patients? If yes, length of follow-up of patients? DONE, at discharge and a minimum of 3 years 6 months follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Hussey D and Guo S (2002) Behavioural change trajectories of partial hospitalization children. American Journal of Orthopsychiatry 72.4: 539-547.	Is the diagnosis described? YES (Diagnosis described). Is the study design prospective or retrospective? Prospective (consecutive).

Intervention=Partial hospitalisation programme N=101 Age ranges=5 to 14 years (mean 10.3 years) Study Population=Child maltreatment (co-morbid low IQ & psychopharmacological therapy). Research Method=Uncontrolled pre/ post test design (also case series chart review of children's records).	Multi-centred or single-centre study? Single-centred. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, until discharge (900 days intervention). Follow-up of professionals? If yes, length of follow-up of professionals? DONE (teachers) up to 900 days of intervention.
Jaffa T and Percival J (2004) The impact of outreach on admissions to an adolescent anorexia nervosa inpatient unit. European Eating Disorders Review 12: 317-320. Intervention: Outreach intervention programme N=25 Age ranges=not stated (adolescent service) Study Population=Anorexia Nervosa Research Method=Case series	Is the diagnosis described? DONE. Is the study prospective or retrospective? Retrospective. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective outcomes (hospital admissions). Follow-up of patients? If yes, length of follow-up of patients? DONE, hospital utilisation when bed became available (time scale varied). Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Kettlewell P, Jones J & Jones R (1985) Adolescent partial hospitalization. Journal of Clinical Child Psychology 14.2: 139-144. Intervention=Partial hospitalisation programme N=62 Age ranges=13 to 18 years Study Population=Emotional/ Behavioural disorders - 35% had dysrhythmic disorder, 29% conduct disorder, 15% histrionic disorder, 10% separation anxiety, 8% schizotypal personality disorder (some patients had multiple disorder). 51% admitted using drugs or alcohol but only 8% had a substance abuse disorder diagnosed.	Is the diagnosis described? DONE (diagnosis described) Is the study prospective or retrospective? Prospective. Stated as consecutive but 8/70 cases dropped out. Multi-centred or single-centre study? Single centre. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, follow-up at discharge (within two

Research Method=Uncontrolled pre/ post test design	weeks of 8 to 12 week intervention completion). Follow-up of professionals? D, length of follow-up of professionals? DONE, therapist completed goal attainment at discharge as well as current functioning scale (within 2 weeks of the 8 to 12 week intervention).
Kinney J, Madsen B, Fleming T & Haappela D (1977) Homebuilders: keeping families together. Journal of Consulting and Clinical Psychology 45.4: 667-673. Intervention=Homebuilders programme N=80 families (134 children 'at risk' of placement) Age ranges=Not stated Study Population=Emotional/ Behavioural disorders at risk of out-of-home placement Research Method=Case series/ post-test design	Is the diagnosis described? Yes (diagnosis described) Is the study prospective or retrospective? Retrospective Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measure (placement status) Follow-up of patients? If yes, length of follow-up of patients? DONE, 1 year after intake. Also at 3 and 6 months the research assistant contacted the families. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Kiser L, McColgan E, Pruitt D, Ackerman B & Moseley J (1984) Child and adolescent day treatment: a descriptive analysis of a model program. International Journal of Partial Hospitalisation 2.4: 263-274. Intervention: Day treatment programme N=53 Age ranges=mean 14 years Study Population=Emotional/ Behavioural Disorders - overanxious disorder was one of the most frequent disorders as was dysthymic disorders. Research Method=Uncontrolled Post-test design	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective and consecutive Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE at discharge (mean 4 months). Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Kiser J, Millsap P, Hickerman S, Heston	

J, Nunn W, Pruitt D & Rohr M (1996) Results of treatment one year later on: child and adolescent partial hospitalization. JAACAP 35: 81-90. Intervention: Partial hospitalisation programme N=188 at follow-up Age ranges=5 to 18 years Study Population=Emotional/ Behavioural Disorders Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective and consecutive. Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, 1 year follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, 1 year follow-up by therapists.
Kiser L, Ackerman B & Pruitt D (1987) A comparison of intensive psychiatric services for children and adolescents: costs of treatment versus hospitalisation. International Journal of Partial Hospitalisation 4.1: 17-27. Intervention: Day hospital vs Inpatient care N=72 day hospital vs 205 inpatient admissions Age ranges=Not stated Study Population=Emotional/ Behavioural Disorders - 37% had a disruptive behavioural disorder. Research Method=Case series (no evidence that inpatient group were clinically equivalent to day hospital patients).	Is the diagnosis described? DONE Is the study prospective or retrospective? Retrospective Multi-centred or single-centre study? Multi-centred (Inpatient vs Day hospital) Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE for costs of treatment & length of stay. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Kotosopoulos S, Walker S, Beggs K & Jones B (1996) A clinical and academic outcome study of children attending a day treatment program. Canadian Journal of Psychiatry 41: 371-379. Intervention=Day treatment programme N=46 Age ranges=7.75 to 13.3 years (mean 11 (SD 1.5)) Study Population=Emotional/ Behavioural Disorders - ADHD, Conduct disorders, Adjustment disorders, Anxiety and ADD & OCD. Research Method=Uncontrolled pre/post	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective with consecutive enrolment. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, follow-up measures taken at 9

test	months (range 7 to 15 months) to 1 year post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, teacher Child Behaviour Checkist and Connors Index within same time frame as parents.
Lay B, Blanz B & Schmidt M (2001) Effectiveness of home treatment in children and adolescents with externalising psychiatric disorders. European Child & Adolescent Psychiatry 10: 80-90. Intervention=Home treatment N=76 Age ranges=9.8 years (SD 2.4 years) range 5.3 to 15.9 Study Population=Internalising/ Externalising disorders - Conduct disorder, hyperkinetic disorder or mixed disorder of conduct and emotion. Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective (not clear if consecutive) Multi-centred or single-centre study? Single centre Blinded assessment of outcome? DONE, objective measure. Follow-up of patients? If yes, length of follow-up of patients? DONE, until discharge at 3.5 months (SD 0.6) post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, clinicians rated treatment outcomes at discharge. Therapists completed global rating scale at discharge. This is 3.5 months (SD 0.6).
Linnihan P (1977) Adolescent day treatment: a community alternative to institutionalisation of the emotionally disturbed adolescent. American Journal of Orthopsychiatry 47.4: 679-688. Intervention: Day treatment programme N=67 Age ranges=Not stated Study Population=Emotional Behavioural Disorders - Approximately one-third of these clients were diagnosed as chronic schizophrenic, one third acute schizophrenic/ borderline, one sixth depression, behaviour and personality disorders, one sixth adolescent adjustment reaction and situational crisis. Research Method=Case series/ Post-test design	Is the diagnosis described? Yes (diagnosis described) Is the study prospective or retrospective? Retrospective Multi-centred or single-centre study? Single-centre Blinded assessment of outcome? DONE, objective measure. Follow-up of patients? If yes, length of follow-up of patients? DONE. Varied by diagnosis but mean follow-up is 6 months Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.

Mikkelsen E, Bereike G & McKenzie J (1993) Short-term family-based residential treatment: an alternative to psychiatric hospitalisation for children. American Journal of Orthopsychiatry 63.1: 28-33. Intervention=Therapeutic foster care N=112 Age ranges=Mean 12.6 years Study Population=Emotional/ Behavioural Disorders - the largest diagnostic categories for the sample were disruptive behaviour and mood disorders. The program admits a lower rate of children with psychotic disorders (1%) compared to rates of 8-10% in child psychiatric units and 18% for adolescent units. Research Method=Uncontrolled post-test design	Is the diagnosis described? DONE Is the study prospective or retrospective? Prospective (unclear if consecutive) Multi-centred or single-centre study? Multi-centred (various mentors homes) Blinded assessment of outcome? DONE, objective measure (placement status). Follow-up of patients? If yes, length of follow-up of patients? DONE, 3 months post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Milin R, Coupland K, Walker S & Fisher-Bloom E (2000) Outcome and follow-up study of an adolescent psychiatric day treatment school program. JAACAP 39.3: 320-328. Intervention=Day hospital programme. N=55 Age ranges=12 to 19 years (mean 14.2 years, SD=1.5) Study Population=Emotional and Behavioural Disorders Research Method=Uncontrolled pre/post test design.	Is the diagnosis described? DONE. Is the study design prospective or retrospective? Prospective/ consecutive. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, standardised measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, at discharge (mean 30 months, SD 5.7) and 1 year follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE. Although authors state Teacher Child Behaviour Checklist was used, there is no data available on these outcomes.
Mosier J, Burlingame G, Wells M, Ferre R, Latkowski M, Johansen J, Peterson G & Walton E (2001) In-home, family centred psychiatric treatment for high-risk children and youth. Children's services 4.2: 51-58. Intervention: Home treatment N=104	Is the diagnosis described? NOT DONE. Is the study prospective or retrospective? Prospective and consecutive. Multi-centred or single-centre study? Single management site.

Age ranges=4 to 17 years Study Population=Emotional/ Behavioural Disorders – depressive spectrum disorders, ADHD, oppositional defiant disorder accounted for over 50% of the sample Research Method=Uncontrolled pre/post test design (youth were continuously assessed after each session of treatment).	Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, but only for the first 8 weeks of treatment usually. No post-discharge follow-up. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Robinson K and Rapport L (2002) Outcomes of a school-based mental health program for youth with serious emotional disorders. Psychology in the schools 39.6: 661-675. Intervention=School-based day hospital programme N=145 Age ranges=5 to 17 years Study Population=Emotional Behavioural Disorders - Children with disruptive behaviour disorder (ADD, Oppositional Defiant, Conduct Disorder) represented 77% of the sample. Mood and anxiety disorders were present in 21% of children referred. Other primary diagnosis were developmental disorders (4.9%) and adjustment disorders (16%). Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective with consecutive enrolment. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE up to 9 months post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Ruffin J, Spencer H, Abel A, Gage J & Miles L (1993) Crisis stabilisation services for children and adolescents. Community Mental Health Journal 29.5: 433-440. Intervention: Outpatient crisis intervention programme N=Not applicable (descriptive study) Age ranges=Not stated Study Population=Suicide Research Method=Descriptive	* DESCRIPTIVE STUDY *
Sack W, Mason R & Collins R (1987) A long-term follow up study of a children's psychiatric day treatment centre. Child Psychiatry and Human Development 18.1: 58-68. Intervention: Day hospital programme	Is the diagnosis described? DONE Is the study prospective or retrospective? Retrospective Multi-centred or single-centre study? Single-centre

N=79 Age ranges=3 to 8 years (mean 6 years) Study Population=Emotional and Behavioural Disorders Research Method=Case series	Blinded assessment of outcome? DONE, objective outcomes. Follow-up of patients? If yes, length of follow-up of patients? DONE, mean 7 years for the follow-up interview. Follow-up of professionals? If yes, length of follow-up of professionals? DONE. Chart review by clinicians.
Schwartz I & Wernert T (1993) Reducing psychiatric hospitalisation for children and adolescents in Toledo, Ohio. Community alternatives: International journal of family care 5.2: 71-78. Intervention: Community wraparound services (hospital diversion policy) N=Not stated Age ranges=Not stated Study Population=Emotional Behavioural Disorders Research Method=Descriptive	* DESCRIPTIVE STUDY *
Seelig W, Goldman-Hall B & Jerrell J (1992) In-home treatment of families with seriously disturbed adolescents in crisis. Family Process 31: 135-149. Intervention: Home treatment N=51 Age ranges=12 to 17 years Study Population=Emotional-behavioural disorder (psychiatric crisis/ severe emotional disturbance) Research Method=Uncontrolled pre/post test design	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective (unclear if consecutive). Multi-centred or single-centre study? Single-management centre Blinded assessment of outcome? DONE. Follow-up of patients? If yes, length of follow-up of patients? DONE, at discharge (90 days post-admission), 6 months and 12 months post-discharge. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, clinicians rated Family Adaptability/ Cohesion Evaluation Scales at admission and discharge (90 days later).

Waller D, Mugan M, Morshed T, Setnick J & Cummings M (2003) Three year follow-up study of children and adolescents with anorexia nervosa initially treated in a continuum of care program. Eating Disorders 11: 63-72. Intervention: Specialist outpatient clinic N=14 Age ranges=9.8-17.5 years Study Population=Anorexia Nervosa Research Method= Case series (inpatient control group are clinically different at baseline and therefore excluded).	Is the diagnosis described? DONE. Is the study prospective or retrospective? Prospective for outpatients. Multi-centred or single-centre study? Single-centre. Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, 12/14 were followed up at 3 years. 14/14 were followed up at 1 and 2 years post-admission. Follow-up of professionals? If yes, length of follow-up of professionals? NOT DONE.
Worrall-Davies A & Kiernan K (2005) Using a virtual team: an evaluation of the Bradford CAMHS intensive home treatment approach. University of Leeds: Leeds Intervention: Home treatment N=9 Age ranges=median 14 years (range 12 to 19 years) Study Population=Emotional/ Behavioural Disorders Research Method=Descriptive	* DESCRIPTIVE STUDY *
Yoe J, Santacangelo S, Atkins M & Burchard J (1996) Wraparound care in Vermont. Journal of child and family studies 5.1: 23-29. Intervention=Community wraparound services N=40 Age ranges=7 to 20 years (mean 16 years) Study Population=Emotional/ Behavioural Disorder Research Method=Uncontrolled pre/post test	Is the diagnosis described? DONE. Is the study design prospective or retrospective? Prospective (not stated as consecutive). Multi-centred or single-centre study? Single-centred (one wraparound centre). Blinded assessment of outcome? DONE, objective measures. Follow-up of patients? If yes, length of follow-up of patients? DONE, every 3 months up to 1 year

	anniversary of admission. Follow-up of professionals? If yes, length of follow-up of professionals? DONE, case managers completed quarterly returns plus 12 month school placement follow-up.

Appendix 3

Data extraction form

1. Randomised controlled trials *[Modified for other study designs]*

Alternatives to inpatient care for children/ adolescents with severe mental health difficulties: Randomised controlled trials

Name of reviewer#01:
Name of reviewer#02:

Date:
Date:

Study Full Reference:

Country of Study:
Source of Paper: (Medline etc)

Tier 2/3/4 (delete as applicable)
Language:

Type of Treatment:
Diagnostic Group:

1. Inclusion criteria

Study design

1.1.1. RCT DESIGNS

Full RCT (*If Quasi-RCT please use Controlled Clinical Studies Form Instead*)

2. Interventions

2.1 Type of intervention (state all interventions for each comparison/study group).

Group 1:

Group 2:

Group 3:

Group 4:

2.2 Qualitative description of intervention

Elements of the intervention (If none presented, tick here)

Staff Involved:

Special training for staff:

Work load for staff:

Contact hours between staff & patients:

Models of behaviour/therapeutic approach:

Individualised services/care (i.e. services tailored to individual patient):

Goal oriented approach:

Comprehensive crisis plan:

Team meetings:

Duration of treatment:

Treatment manual followed:

Family involvement:

Setting of intervention:

Multi-agency arrangements:

2.3 Control(s)

Group 1C:

Is control site inpatient care or another outpatient **alternative** to inpatient care?

Group 2C:

Is control site inpatient care or another outpatient **alternative** to inpatient care?

2.4 Characteristics of the intervention

a) Evidence base of recommendation

2.5 Intervention based upon implementation of clinical practice guidelines

2.6 Recipient

i) Frequency/number of intervention events reported
ii) Duration of intervention reported

2.7 Source of funding for intervention (and for research study)

2.8 Ethical approval

3. Participants (Treatment group and Control group)

3.1 Characteristics of Participating patients

Inclusion Criteria:

Exclusion Criteria:

3.2. Clinical problem

3.3 Other patient characteristics

a) Age

b) Gender

c) Ethnicity

d) Normal residence (family, foster care, prison)

e) Family characteristics:

f) Source of recruitment to study:

g) Recruitment date(s):

h) Other features:

3.4 Number of patients included in the study

a) Patients (Number recruited)

4. Setting

4.1 Reimbursement system

4.2 Location of Care

Setting 1:

Setting 2:

Setting 3:

Setting 4:

4.3 Academic status

5. Methods

5.1 Power calculation

5.2 Intention to treat analysis

5.3 Quality criteria: Relevant and interpretable data presented or obtainable?

5.3.1 Quality criteria for randomised controlled trials (RCTs)

a) Concealment of allocation/ method of allocating groups

b) Follow-up of professionals

c) Follow-up of patients or episodes of care

d) Blinded assessment of primary outcome(s)

e) Baseline measurement

f) Reliable primary outcome measure(s) (Objective or subjective)

g) Protection against contamination

6. Results

OUTCOME	**RESULTS (95% CI)**
Objective measures **Self-report / Subjective measures**	**T:** **C:** **T:** **C:**
<u>Patient satisfaction</u> **Patient** **Parent / Family**	**T :** **C :** **T:** **C:**
Length of intervention ***When were outcome measures taken after initiation of intervention?***	**T:** **C:** **T:** **C:**
Health professional outcomes / process measures	
<u>Economic outcomes</u>	**T:** **C:**
Identify possible ceiling effects: **By investigator**	 **T:** **C::**

By reviewer	
Is treatment fidelity reported? Give details. Please state if treatment manual was followed.	
Use of other services/ treatments during study (medications, other alternative services etc)	
Describe any compliance/ attrition issues?	
No. treatment group rehospitalised during study period?	
No. control group rehospitalised during study period?	
No. treatment group rehospitalised in follow up period?	
No. control group rehospitalised in follow up period?	
Length of follow-up after completing intervention.	**T: C C:**
No. patients withdrawn/ lost to follow up:	**T: C:**
Mortality of patients **Suicide** **Other cause(s)**	 **T: C:**

Additional Comments:

Appendix 4

Mapping Questionnaire

Alternatives to inpatient mental health services for children and young people with complex mental health needs

We are based at the Department of Public Health, University of Oxford, and have been commissioned by the NHS Service Delivery and Organisation (SDO) R&D Programme to carry out a UK survey of alternatives to inpatient mental health services for children and young people. We are collaborating with the University of Durham in order to ensure that the data we collect will complement the Durham CAMHS mapping exercise.

We are interested in all types of services that may be provided as an alternative to inpatient care. Alternative in this context simply refers to a service that provides non-inpatient treatment for a young person who might otherwise be at risk of being admitted to inpatient care, if the alternative service was not available.

A range of alternative services have been developed to manage some young people with complex mental health needs, in an outpatient, day care or other community setting. Such alternative services include assertive outreach, intensive community-based interventions, intensive treatment foster care, intensive outpatient or day services, and other specialist services.

We would like you to tell us about any alternative services that are operational in your area. Please only include services that provide treatment for young people with complex mental health needs.

The information that we gather through this survey will be used to create a description of the models of service used as an alternative to inpatient mental health care for children and young people. As well as data on the prevalence and caseload of alternative services, we would also like to report in more depth about how these services work and the context in which these services are operating. Please use the opportunities provided in the questionnaire to tell us about these issues.

Please could you answer the following questions based on your CAMH services during the sample period: 1st June 2006 and 30th November 2006.

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Alternatives to Inpatient Mental Health Care for Children and Young People

Please tell us about any specialist services that you provide as an alternative to inpatient care for children or adolescents (<18 years of age) with complex mental health needs who have been referred and assessed.

Listed below are the different types of alternative service that you might provide. For each alternative service that you provide, please click on the 'Add service' button. This will take you to a set of questions that we would like you to complete for each alternative service.

Once you have completed all your alternative service questionnaires, please click here:

All alternative services entered

Type of service		Name of service(s)	Status	Action
Intensive day service	Add service	New name	in progress	edit delegate delete
Intensive outpatient service	Add service	**None**		
Intensive home treatment	Add service	**None**		
Intensive treatment within foster care	Add service	**None**		
Other intensive outreach	Add service	**None**		
Other specific therapeutic programme	Add service	**None**		
Crisis intervention service	Add service	**None**		
Early intervention in psychosis service	Add service	**None**		
Other	Add service	**None**		

If you do not provide any services as an alternative to inpatient care, please click on the all alternative services entered button.

We would like you to complete a separate set of questions for every alternative service that you provide, even if two or more are delivered by the same team. Once you have entered the service type, name and provider team on the following pages, you may continue answering questions about a service, or you may choose to return to this page to add any additional services.

[1] 'Other specific therapeutic programme' includes services that might be comprised of a number of different elements within one service, such as a

dialectical behaviour therapy service that includes group work, individual treatment, and telephone support.

Alternatives to Inpatient Mental Health Care for Children and Young People

Name of alternative service	
Choose Host CAMHS Team	

Does the alternative service comprise the whole of the team's work as described in the CAMHS Mapping exercise, or is it only part of it (i.e. the team also delivers other services)?

If this service is the whole team then you will not be asked further questions about caseload and staffing as these can be taken fro the CAMHS mapping data.

Choose one from the following list

Whole team ☐

Part of team ☐

To continue answering questions about this service, please click on "Next"

Alternatives to Inpatient Mental Health Care for Children and Young People

What is the Tier level of your service? *Please tick one option*

Tier 3 ☐
Tier 4 ☐

When did the service become operational?

Please describe any innovative practice that is part of your alternative service

Please give a short description of your alternative service.

In which setting(s) does the service operate? *Please tick all that apply*

Psychiatric hospital / unit ☐
General hospital ☐
Specialist mental health centre ☐
Within the home ☐
GP/primary health care setting ☐
Community based clinic ☐
Social services setting ☐
Education establishment ☐
Voluntary sector ☐
Other: specify ☐

_____

Which approaches are being practised as part of your alternative service? *Please tick all that apply*

Individual therapy		☐
Group therapy		☐
Family therapy		☐
Pharmacotherapy		☐
Other:	specify	☐

_____

__

Please describe all the therapeutic approaches that you are using

Please indicate the capacity of your alternative service, and the number of children and adolescents that have been supported by the service during the sample period 1st June 2006 to 30th November 2006.

Maximum capacity at any one time (total number of places available)	
Number of young people supported during sample period	

What is the age range supported by your alternative service?

Lower age limit (years)	
Upper age limit (years)	

Please give the number of staff in post for your alternative service, by WTE staff in post as of 1st November 2006

Please only include time devoted to providing this alternative service (exclude time devoted to providing other services).

Nurses	
Psychiatrists	
Clinical Psychologists	
Clinical Psychologists (trainee)	
Educational Psychologists	
Educational Psychologists (trainee)	
Social worker	
Primary mental health worker	
Psychotherapist	
Family Therapist	
Occupational Therapist	
Other qualified therapists	
Other qualified staff	
Other unqualified staff who work with clients	
Non-clinical managers	
Administrative staff	
Other staff (please describe) _____ __	

Please indicate whether your alternative service includes any of the following: *Please tick as many as apply*

- 24 hour cover ☐
- Emergency out of hours care ☐
- Specialist mental health assessment within 24 hours of referral, or next working day ☐

Does your alternative service specifically target any of the following groups [i.e., only treat this group of young people and no other]? *Please tick all that apply*

- 16-17 year olds ☐
- Young people with mild learning disability ☐
- Young people with moderate/severe learning disability ☐

Young people in contact with the criminal justice system (forensic mental health services) ☐

Please select all the other agencies who contribute to the provision of this service:

Other NHS provider (PCT or NHS trust) ☐

Local authority provider ☐

Other provider name (where not NHS or LA) ☐

CVS provider (Community and Voluntary Sector) ☐

Independent ☐

This service is provided by another organisations, not this one, but is being mapped by this organisation (usually CAMHS LA provision only) ☐

Please describe the geographical area that the service covers (from where caseload originates).

Please use whichever level of geographical description is appropriate for your alternative service. For example, if the alternative service is local, please name all PCTs and local authorities from where your caseload originates. If the alternative service is wider than local, please list all Strategic Health Authorities that have commissioning arrangements with the alternative service.

☐

What is the population of the area that your alternative service covers?
Child population <18 years of age

☐

What is the geographic profile of the CAMHS population served by your service(s)? *Please tick as many as relevant*

Urban (pop >200,000) ☐
Large town (pop 50,000 to 200,000) ☐
Small town (pop <50,000) ☐
Rural ☐
Remote rural ☐

Age and Gender profile

Provide the age and gender profile of the service caseload worked with in the sample period.

Age (yrs)	Males (number of cases)	Females (number of cases)
0-4		
5-9		
10-14		
15		
16-18		
19-25		
Not known		
Total		

Ethnic profile

Provide the ethnic profile of the service caseload worked with in the sample period.

	Male (number of cases)	Female (number of cases)
White: British		
White: Irish		
White: Any other background		
Mixed: mixed white and black Caribbean		
Mixed: Mixed white and black African		
Mixed: Mixed white and Asian		
Mixed: Any other mixed background		
Asian or Asian British: Indian		
Asian or Asian British: Pakistani		
Asian or Asian British: Bangladeshi		
Asian or Asian British: Any other Asian		

background		
Black or Black British: Caribbean		
Black or Black British: African		
Black or Black British: Any other black background		
Chinese		
Any other ethnic group		
Not stated		
TOTAL		

Referral sources:

	Number of cases
Primary health care	
Education [3]	
Social Services	
Youth Justice [4]	
Child Health [5]	
Learning disability service	
Adult mental health service [6]	
Voluntary or independent sector	
Self referral	
Internal referral [7]	
Other (please give details) _____	

[3] Education included all school, educational psychologists, education welfare officers and learning support teachers

[4] Youth Justice includes youth offending teams, probation services, legal services and courts

[5] Child health includes acute and community paediatricians, district nurses, and school nurses

[6] Adult mental health services includes community and inpatient adult mental health services

[7] Other CAMHS within same trust, e.g., Tier 3 service

Please provide the duration of wait for all new cases first seen by your alternative service during the sample period.
The duration of wait is the interval between receipt of referral request and the time that the case was first seen (usually for assessment).

	Number of cases
<= 4 weeks	
>4 and <=13 weeks	
>13 and <=26 weeks	
>26 weeks	

Please provide the duration of wait between assessment and service provision for all new cases first seen by your alternative service during the sample period.
The duration of wait is the interval between first assessment and provision of service.

	Number of cases
<= 4 weeks	
>4 and <=13 weeks	
>13 and <=26 weeks	
>26 weeks	

Duration of treatment so far
This is measured from the point at which the case was accepted onto a team-member's caseload

	Number
<=4 weeks	
>4 and <=13 weeks	
>13 and <=26 weeks	
>26 and <=52 weeks	
>1 year	
TOTAL	

Please indicate the main presenting reason for admission of young people supported by your alternative service during the sample period.

The main presenting reason for admission is the immediate problem that has precipitated referral to / acceptance by your alternative service. This is not the same as the underlying presenting disorder that may have been clinically diagnosed.

	Males (number of cases)	Females (number of cases)
Risk of suicide		
Risk of severe self-harm		
Risk of harm to others		
Psychosis		
Physical complications of eating disorder		
Depression / anxiety (without risk of suicide)		

Acute confusional state (including drug/alcohol intoxication)		
Breakdown in family relations or supportive network		
Homelessness		
Other (please give details)_____ _____		

Primary presentation

Enter the primary presentation of all cases worked with during the sample period (this may termed a presenting problem or disorder). Indicate whether the service normally accepts, or does not normally accept, cases from each group.

Each person should be recorded only once.

	Number of cases	Normally accepted by service (tick all that are normally accepted)
Hyperkinetic disorders [8]		☐
Emotional disorders [9]		☐
Conduct disorders [10]		☐
Eating disorders [11]		☐
Psychotic disorders [12]		☐
Deliberate self-harm [13]		☐
Substance abuse [14]		☐
Habit disorders [15]		☐
Autism spectrum disorders		☐
Developmental disorders [16]		☐
Not possible to define [17]		☐
Other		☐
More than one disorder [18]		☐
TOTAL		☐

[8] Includes ADHD and other attentional disorders
[9] Includes anxiety, depression, phobias, OCD, PTSD
[10] Includes anti-social behaviour, stealing, defiance, fire-setting and aggression?
[11] Includes pre-school eating problems, anorexia nervosa, and bulimia nervosa
[12] Includes schizophrenia, manic depressive disorder and drug-induced psychosis

[13] Includes lacerations and drug and alcohol overdose
[14] Refers to drug and alcohol misuse
[15] Includes tic, sleeping problems and soiling

[16] Refers to delay in acquiring certain skills such as speech, bladder control and social ability

[17] Only use if it is not possible to define one primary disorder

[18] Only use if there is more than one presenting disorder, to the extent that it is not possible to identify a primary disorder

Please indicate how many children and adolescents supported by your alternative service during the sample period had a co-morbid substance abuse disorder [19] (includes alcohol and/or drug abuse)?

	Number of cases
Alcohol abuse	
Drug abuse	
Both alcohol and drug abuse	

[19] Please exclude all persons with primary presenting disorder of substance abuse

Please indicate how many young people supported within the sample period (1st June 2006 to 30th November 2006) have the following special characteristics, and whether young people with these characteristics are normally accepted by your alternative service. *Please tick all that apply*

A young person may be included in more than one category.

	Number of cases	Normally accepted by service (tick all that are normally accepted)
Children currently looked after by their local authority - in foster care		☐
Children currently looked after by their local authority – in residential care		☐
Children *not* looked after by their local authority – currently in residential setting		☐
Children in contact with youth offending services in last year		☐
Children with mild learning disability		☐
Children with moderate/severe learning disability		☐

Please indicate the exclusion criteria for your alternative service.
Please tick as many as relevant.
Please tick if a young person with a particular characteristic is excluded from the service.

Risk of suicide	☐
Currently self-harming	☐
High risk to others	☐
Drug and/or alcohol abuse	☐
Homelessness	☐
Acute psychosis	☐
Mild learning disability	☐
Moderate/severe learning disability	☐
Risk of absconding	☐
Currently taking medication	☐
Non-compliance with medication	☐
Forensic history	☐
Impending court appearance	☐
Other: specify	☐

_____

Please indicate if any of the following measures are being used to assess outcomes (administered at time of entry into the services and at 6 months later or at case closure) in at least one part of the service.

	Yes	No
SDQ for parents	☐	☐
SDQ for children	☐	☐
CHI-ESQ for parents	☐	☐
CHI-ESQ for children	☐	☐
CGAS for pracitioners	☐	☐
HoNSCA	☐	☐

Other (please specify)

_____

Please indicate how many young people it was not possible to admit to your alternative service during the sample period because the service was full

Number of young people not able to admit	☐

Please indicate the type of care that those young people not admitted to your service were referred on to.

	Number of cases
Inpatient child / adolescent mental health service	
Early intervention service	
Other child / adolescent mental health service (e.g. Tier 3 service)	
Inpatient general hospital paediatric service	
Adult psychiatric service	
Frequent and unscheduled attendance at day care	
Other (please give details) _____	

We would like to find out more about some issues that may be relevant to your alternative service. Please tell us anything that you would like about the following issues:

The impact of your service on the number of young people admitted to inpatient care in your area

The mental health needs of young people treated by your alternative service compared with those receiving inpatient care

The need for inpatient provision alongside your alternative service

Disclaimer

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Addendum

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The management of the Service Delivery and Organisation (SDO) programme has now transferred to the National Institute for Health Research Evaluations, Trials and Studies Coordinating Centre (NETSCC) based at the University of Southampton. Prior to April 2009, NETSCC had no involvement in the commissioning or production of this document and therefore we may not be able to comment on the background or technical detail of this document. Should you have any queries please contact sdo@southampton.ac.uk.